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THE JOURNAL

of the

Missouri State Medical Association

The Official Organ of the State Association and Component Societies
Issued Monthly Under Direction of the Publication Committee

PUBLICATION COMMITTEE

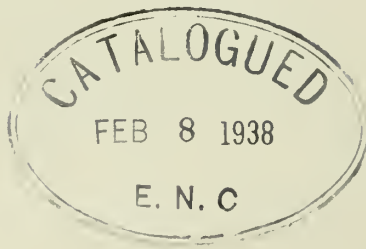
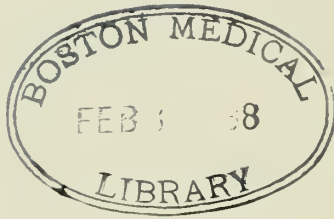
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THE OBLIGATIONS OF THE HOSPITAL TO ITS INTERNS

BUFORD G. HAMILTON, M.D.
KANSAS CITY, MO.

The cost to each student finishing college and medicine is estimated to be from \$8000 to \$15,000. It is also estimated that it costs the medical school from \$3200 to \$10,000 for every student graduated in medicine. So exacting are the requirements of medical education that only those who have approved qualifications graduate.

Another part of the picture are those outstanding medical educators who not only have spent years in preparation but who are giving untold hours of intelligent effort in teaching medicine.

After graduation it is then recommended that at least one additional year be spent in hospital work. It has long since been appreciated that the type of medicine practiced in any city, town or community is estimated by the training of its doctors.

The high cost of medical education and the exacting demands of teaching medicine certainly hold responsibilities for those who accept the graduates of medicine for interns. For this reason only one conclusion must follow; namely, that internships must be rated by the ability of hospital staffs to teach medicine.

For many years I have served on intern committees. During this time I have had cause to review the records of students from the majority of medical schools in the United States. It is very evident that at no time in the history of medicine have so many well qualified physicians been graduated.

Little criticism can be offered for those hospital services connected with teaching institutions. Our real problem is our private hospital. Our private hospitals are usually managed by business men or religious organizations

and their chief function is to give service to the sick. The obligations of the hospital to its interns are few since the intern's material wants are well cared for. Most often the policy of a hospital is formed from the needs and suggestions of its staff. For this reason I would say the staff is the hospital and the obligation of the hospital to its interns becomes the responsibility of the staff.

No question demands more thought. No question is more discussed in staff meetings and encouraging is the fact that many staff members are giving thought and time to the subject of teaching interns. It is my humble opinion that our obligation to interns is met in proportion to the teaching ability of the staff. I will dare to make the prediction that in the next ten years medical school authorities will supply interns only to those hospitals meeting definite requirements for teaching their former students. Many school are already supervising the internships for their students and they are attempting to place students with an eye to the ability of staff members to teach.

In twenty-one of the central states there are thirty-seven medical schools. As late as 1910 one could find as many as fifteen medical schools in one state. Of the twenty-one states studied only Illinois has as many as three approved medical schools. A few years ago the American Medical Association established certain standards for medical schools. Schools were graded in keeping with their ability to teach students. Soon other agencies were formed for grading hospitals. Whenever suggestions were offered for improving standards in the numerous medical schools it was frequently said, "It can't be done." Yet today in twenty-one central states there are only thirty-seven schools giving approved instruction in medicine. Hospital staffs frequently said it could not be done and that the direction of hospitals rested with hospital boards and their staffs and that they would direct their hospitals as they saw fit.

The improvement in hospital standards is known to all. Both the hospitals and their staffs

are making efforts toward approval by our national agencies.

The intern committee of each hospital is a most important committee. No longer is the type of intern so important since few are graduated who are not capable. However, it is important to choose interns who are adapted to a given hospital. Most intern committees become enthusiastic while choosing interns. Unfortunately, enthusiasm lessens with time and interns are forgotten, the point being that interns do not have regular supervision. Each staff member is an authority unto himself, and too often an internship becomes only an observation service with the hospital, a place in which to sleep and eat. The enthusiasm of interns entering upon their duties is most interesting. All patients are seen; very good histories are written and all laboratory work done. Unfortunately, the history may not be read by the staff man and too often, in private hospitals, interns are told that they must not examine certain types of patients. Such an attitude of a staff member not only discourages the efforts of the intern but may change his attitude toward medicine.

Every intern is the reflection of his hospital and his staff men in his private practice. The only remedy I see for this situation is for hospitals to become teaching institutions under the direction of educational agencies. A staff man can have no better assistant than his intern. Every patient who enters our private hospitals will not only accept the examinations made by the intern but will be grateful for the extra attention and service. Furthermore, any staff man making regular rounds with his intern each day, and taking time to discuss the merits of cases, will be compelled to have a closer association with Minerva.

Hospitals are popularized by service and service alone and an efficient intern service is our best agency. Interns then are not only taught the science of medicine but the art of medicine, which is people.

Each year private hospitals must accept patients from their staff that cannot pay for hospital service. All patients so admitted should be grouped into an intern service under the supervision of the staff. In the large cities this is often done but in many private hospitals, staff members seem to be jealous of such work. Again it may be said it cannot be done. May I issue a word of warning? Fortunate are those hospitals that anticipate or see these changes coming and institute such means or methods as will meet the future demands of national organization. Already there have been formed national boards in the different specialties of medicine who through examination are certi-

fying those qualified to be designated as specialists. While specialists have been made by personal acclamation in years past, the time is not far distant when staff members will be graded and certified upon their qualifications.

There is no greater problem for the student and the schools than internships. Several schools are requiring one year internship before graduation and without doubt all medical schools will have the same requirement for graduation when there are available a sufficient number of approved teaching hospitals. At times we may question whether our schools are putting forth sufficient effort in placing their students. Probably we, their graduates, should assume more responsibility for the teaching of students after their graduation.

Most students accepting inferior internships are denied advanced training. Either the character of their internships is not known or is known to be inefficient. It has been very definitely proven in Kansas City that the work of the intern committee in years past has been, at least in part, a failure. Having served for many years both as an intern committeeman and a staff official, I think I can speak with authority when I say being too busy, temerity and staff inertia, are the exciting causes of our failure. We may use rare judgment in choosing interns at times, yet we have not been able to regulate the relation of the individual staff member and the intern. Both the staff members and interns require supervision and until recently I have said with my associates on committees, it cannot be done.

In the last five years a condition has developed in Kansas City that is interesting. There have been times in previous years when it seemed impossible to even hire interns. Under improved conditions we are having in our private hospitals as many as seventy-five applicants in one year and we are now able to choose the best interns from our best schools. In our larger hospitals full time pathologists have charge of all laboratory work. Very close relations have developed between the staff members and the pathologist and may I say there has developed closer friendships between the staff members.

Because the pathologist is in the hospital at all times the interns have adopted him as their godfather. From 60 per cent to 90 per cent postmortems in one year have been reported from these hospitals, a national record for private hospitals; and may I say the intern "got the post." The pathologist is now made chairman of the intern committee. His close association at all times with both the staff members and interns has developed a friendly supervision that has solved problems impossible of

solution in years past. The interest developed in pathology has stimulated interest in all departments and while not perfect, the improvement has been so striking that these hospitals are looking forward to being classed as teaching hospitals for interns. From hiring interns to having as many as fifty to seventy-five outstanding applicants each year, seems to speak for a system of friendly supervision of both interns and staff members. Most encouraging are the larger number of interns being accepted for advanced training in those hospitals connected with teaching institutions.

Finally, it is our belief that no hospital or no staff will have fulfilled its obligation to its interns until such a time as they become approved teaching hospitals for interns, under the supervision of national educational organizations.

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CARDIAC EMERGENCIES

DREW LUTEN, M.D.

ST. LOUIS

In the vast majority of cases of heart disease the disorder does not constitute an emergency. In many instances the situation may be fraught with great danger, the need for appropriate therapeutic measure being imperative, yet the immediate necessity for instituting treatment may not be urgent. Although in comparison to the total number of cardiac patients emergencies are rare, yet in the aggregate a considerable number of cases occur which may demand immediate attention from the hospital house officer or from the attending physician. Such instances by no means are confined to hospital practice. Some of them are described in the following paragraphs.

Wounds of the Heart.—It is obvious that puncture wounds of the heart must receive immediate surgical consideration. Such cases are rare, but among them instances of successful surgical intervention are reported in increasing numbers.

Coronary Thrombosis.—Although the immediate prospect in the average case of coronary thrombosis is that the patient will improve to some extent at least, yet every case, because of the serious possibilities, in its early phases must be regarded as an emergency. Progress in the classification of cases on the basis of severity has not yet reached the stage which permits neglect of protective measures in any case. In certain instances these precautions may be lessened in some degree after a few weeks, but at first the patient invariably should be put at rest no matter how mild may be the evidences of ob-

struction. In most cases morphine (or dilaudid) is advisable. The dose should not be too small. Whether or not it is decided ultimately to continue a low calorie regime, little food should be allowed at first. Abdominal distention should be avoided. Because of experimental evidence that phenobarbital lessens cardiac output, nembutal probably is to be preferred in cases in which barbiturates are deemed in order. Unless signs of congestive heart failure appear digitalis should not be ordered. By most authorities the routine use of quinidine is not approved.

Angina Pectoris.—A transient attack of pain due to temporary coronary insufficiency may be catalogued as an emergency in that the attack usually can and should be aborted by the prompt administration of glyceryl trinitrate. The drug should be given in tablet form, 1/200 grain, to be held in the mouth until dissolved. Complete examination of the patient and a more comprehensive regime should not long be delayed.

Acute Left Ventricular Failure.—Acute failure of the left ventricle may be evidenced by paroxysmal dyspnea, particularly nocturnal, in many instances accompanied by pulmonary edema. The prompt hypodermic administration of morphine usually stops the attack. Upon detailed examination common findings are hypertension, an abnormal electrocardiogram, alternation, gallop rhythm, rales at the lung bases, or other evidences of heart strain or of heart disease. Digitalis is indicated in order to improve myocardial efficiency and thus prevent recurrence of the attacks.

Purulent Pericarditis.—In many nonpurulent cases of pericardial effusion no necessity for removal of fluid is apparent and decision as to the best method of procedure usually may wait; but pus in the pericardial sac calls for evacuation. In questionable cases exploratory puncture should be made, any risk in such diagnostic procedure being less than that in delay when pus is present. Once the diagnosis is established drainage should not long be delayed.

Acute Toxic Myocarditis.—In most cases of acute circulatory failure the fault lies primarily not in the heart but in the peripheral circulatory apparatus. Since shock usually is extracardiac in origin it cannot as a rule be listed as a cardiac emergency. Treatment appropriate for shock generally, therefore, is not a proper concern of this discussion. It relates particularly to the peripheral mechanism.

Occasionally the heart itself is affected by the toxic or other processes responsible for the situation to such an extent as to be a factor in the symptoms, and must be considered in therapy. In such cases, as in other instances

of acute toxemia, chief reliance must be put on measures generally applicable to the basic situation rather than on drugs which act specifically upon the heart. Under such circumstances vigorous therapy directed primarily to the heart is more likely to do harm than good. Drugs which single out the heart in antitoxic action are unknown. Morphine is perhaps more valuable, so far as purely cardiac effects are concerned, than caffeine.

Adams-Stokes Attacks.—The occurrence of periods of ventricular asystole associated with various degrees of auriculoventricular block may call for emergency measures during an attack as well as for efforts to prevent recurrence. Care applicable to convulsive seizures in general must be given to the patient. In an individual seizure the general prospect favors resumption of ventricular beating and special measures directed toward that objective seldom are to be employed. If, however, spontaneous beating appears improbable the interventricular injection of a few minims of epinephrine is in order.

In cases in which the attacks recur at short intervals epinephrine, from 5 to 10 minims, may be administered subcutaneously and repeated as indicated. Atropine or barium chloride may be tried.

Cardiac Standstill.—Occasionally, with sudden shock or other severe insult, impulse formation at the pacemaker is suspended. Unless an artificial pacemaker such as has been devised by Hymen is available, an attempt at cardiac massage probably offers the best chance of restoration. Except in the course of an operation allowing more direct approach to the heart, however, the probability of success would appear to be remote.

Paroxysmal Tachycardia.—The great majority of attacks subside spontaneously. Simple sedatives or morphine along with reassurance of the patient usually meet all requirements. In paroxysms of auricular origin carotid sinus pressure frequently is effective. The initial application of pressure should not be too strong or too long continued.

In attacks of ventricular tachycardia of long duration the question of the employment of quinidine frequently arises. In considering the problem it must be kept in mind that it is by its depressant action on the ventricle that the drug effects cessation of such abnormal rhythms. In rare instances the risk attendant on this action under such circumstances may appear to be less than the probability of spontaneous cessation of the attack.

Congestive Heart Failure.—There are no sharply defined criteria by which cases of congestive heart failure may be grouped according

to severity. In a small proportion of cases immediate treatment is urgent at the initial examination. In most such instances morphine should be the therapeutic agent first employed. The administration of digitalis should be delayed pending a comprehensive effort to obtain information regarding recent dosage. Under no circumstances should large doses be ordered except with the certainty that they may not be contraindicated by amounts previously taken.

In case of uncertainty the drug should be given with great caution. If none has recently been given, it may be that maximum aid will require a considerable quantity; but some benefit will accrue from a lesser amount. Total dosage may then be reached more gradually. However much its accomplishment might be desirable, immediate complete digitalization is not an emergency procedure.

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ABRASIONS AND CONTUSIONS

W. L. ALLEE, M.D.

ELDON, MO.

The diagnosis of abrasions and contusions is obvious and this brief article does not deal with the possibility of serious injury to the deep tissues and many times bony structures underlying the abrasions or contusions. We are interested in "what to do" and to anticipate complications that are possible or probable from this type of superficial injury. We should select the type of treatment that will permit the patient to get back to work as soon as possible with the least disfigurement and impairment of normal function as well as a treatment that will afford the patient the most comfort during the healing and resorptive process in such type of injury.

Contusions are the results of blows or pressure not sufficient to cause death of tissue about the site of injury. From this type of injury we have circulatory impairment, possible rupture or thrombosis of vessels with localized edema, inflammatory exudate and possibly hemorrhage. This results in swelling, heat, pain and tenderness from tension and at times ecchymosis or hematoma. We have as a rule in contusions the primary stage of inflammatory reaction lasting twelve to twenty-four hours, and secondary stage of resorption and repair lasting days or weeks, dependent upon the extent and locality of the lesion.

The aim of treatment in the first stage is aid to the circulatory disturbance and the resulting inflammatory trouble. In the second stage, it is to assist in the removal of exudate and hemorrhage and bring about normal circu-

lation. In the milder contusions cold or heat is generally sufficient treatment, especially for the first twenty-four hours. Cold which is preferable as an early treatment may be applied either as an ice bag or iced wet dressings. Magnesium sulphate is available in practically every household and two tablespoonsful to the quart of water is a very desirable solution for wet packs which are preferable to dry packs. It is best not to apply iced packs continuously so instruct the patient to discontinue packs every two or three hours for intervals of twenty to thirty minutes.

In the more severe types of contusions rest and, if the parts involved permit, elevation is desirable. If the patient has much discomfort, aspirin or some mild sedative will generally afford relief and add much to the comfort of the patient. If necessary $\frac{1}{4}$ to $\frac{1}{2}$ grain codeine sulphate may be given with the aspirin. After twenty-four hours heat should be applied to aid the circulatory stasis and hasten the resorption of inflammatory exudate. The most convenient and best way of applying heat is the hot wet packs saturated in either plain hot water or magnesium sulphate solution. Moderate exercise or manipulation with light massage of the contused muscles is well advised. The exercise of muscles should be moderate and not extend beyond reasonable pain limits and continued only for a few minutes with reasonable intervals of rest. When available the use of diathermy is satisfactory and is especially useful in severe contusions of the back, thigh and shoulder muscles. In the more severe contusions hematoma is frequent and it may be advisable if seen early to aspirate. Aspiration is especially indicated if the hematoma is about the face, otherwise there may be a permanent and unsightly lump if the resorption is not perfect. As the devitalized tissue with the resulting sanguinous exudate makes an ideal field for infection, unusually strict asepsis is mandatory. Contusions on the anterior surface of the lower limbs many times result in necrosis, especially in older individuals. Calling the attention of the patient to the possibility of sloughing of the contused area many times relieves the doctor of embarrassment and eliminates the suspicion on the part of the patient that the treatment instituted by the attending physician was at fault. Absolute rest, elevation and the use of elastic bandages is the treatment of choice for contusions about the lower limbs, especially if located anteriorly.

It is well to keep in mind the possibility of nerve lesions as a complication from severe contusions about the knee and elbow joints, back of neck and shoulders.

Abrasions are the most disagreeable minor

injuries we have to treat. Generally they are numerous and nearly always have some foreign material ground into the denuded skin surface and for this reason require time and patience for thorough cleansing out of proportion to such superficial and minor wounds. However we have more chance to give first and early treatment in abrasions than in other minor injuries for which we are most frequently consulted, therefore we have less opportunity for alibis when results are unsatisfactory. Proper cleansing for abrasions is painful and few patients forget a "rough doctor" and undue pain. With this thought in mind, we should first saturate a piece of gauze in .5 per cent solution of novocaine and cover each abrasion, unless the abrasions are so numerous or extensive that there would be danger in the patient absorbing too much of the solution. If there is much denuded skin surface then the solution may be applied with a cotton applicator. With the abrasion protected by gauze, we can cleanse thoroughly the skin about the wound with green soap and water using first benzene to remove grease or oil should there be any about the abrasion. Naturally we begin near edge of the wound and wash the skin detritus containing organisms away and not into the abraded area. With the area about the skin wound cleansed and dry we sponge the abrasion gently with soap and water until thoroughly cleansed. After drying with gauze any of the many mercurial solutions may be applied, using the tinctures on those who expect to feel the bite and the aqueous solutions on women and children. A piece of gauze on which is spread a thin layer of some bland ointment is placed over the abraded area and loosely kept in place with small strips of adhesive tape, except when the abrasion is rather deep and has a weeping surface; then it is advisable to use a snug bandage to hold gauze in place. While the chances of tetanus and gas infection as a result of abrasions is extremely slight, we should advise the use of a prophylactic dose of tetanus and gas serum.

Many of our patients who come to us with abrasions and contusions have monetary award in mind which often prolongs their disability and medical care beyond reasonable limits. However a painstaking thoroughness in our treatment and neatness in our dressings as well as definite instructions on our part as to what cooperation we expect will do much to impress the patient with the fact that we are not only anxious for his speedy recovery but are particularly interested in his losing as little time as possible from his regular occupation. Let us not indulge in too much treatment and physiotherapy to the detriment of patient psychology.

ANALGESICS, SEDATIVES, HYPNOTICS

B. Y. GLASSBERG, M.D.

ST. LOUIS

The relief of pain is a proper function of the physician and of the intern associated with him in the treatment of the hospitalized patient. Various analgesic drugs are easily available, sometimes too easily prescribed; all drugs should be used judiciously, the analgesic, sedative and hypnotic drugs most of all. Too often prescribed, too frequently used and too carelessly offered they are habit forming to the extent that the patient who entered the hospital for an acute infectious disease or for a surgical operation leaves it imbued with the conviction that acetylsalicylic acid, the bromides or the barbiturates may be used with impunity and for the relief of any ache or pain or discomfort.

Many times the causes of localized pain can be discovered by a simple examination and effectively relieved by a specific remedy. For example, while many headaches may be relieved by 5 or 10 grains of acetylsalicylic acid, those due to closure of the antrum or the frontal sinus will be quite unaffected; yet the application of a pledget soaked with one of the vasoconstricting drugs such as ephedrine will bring prompt relief. The pain associated with a foreign body in the eye may be relieved quite as effectively with a cold pack as with a quarter grain of morphine. The latter will hardly reduce the agonizing discomfort of an acute peptic ulcer while an alkaline powder or a gastric aspiration will bring prompt relief. Again, in the hypersensitive patient, tactfully approached, a teaspoonful of one of the bromide elixirs will produce a degree of comfort and well-being that the time honored quarter grain of codeine with 5 grains of acetylsalicylic will not achieve.

Patients must be individualized, the cause of their pain sought out, their relative sensitivity to pain determined, and, finally, such medicines or physiotherapeutic procedures as will afford the most direct relief prescribed. In the mind of the hospitalized patient, confined to bed, hemmed in by four walls, who considers himself constantly mistreated by unsympathetic nurses, any discomfort is sure to be magnified. To dismiss such suffering with the statement that it is due to "nerves" is unbecoming in the physician; it is unfair to the patient whose mental equilibrium is strained at the unfamiliarity of hospital procedure; it is disloyal to the hospital which sets itself out as a resort of solace and healing to troubled minds and diseased bodies. A few minutes chat with a friendly intern who manifests the desire to help may do

more than medicine to relieve the anguish of the patient.

In general, acetylsalicylic acid or one of the similar coal tar derivatives will go far toward the relief of pain in the muscular structures of the body; if more severe, the addition of codeine in appropriate dosage will be beneficial. If the muscular discomfort is in the back and follows a period of rest in bed, gentle massage with kneading of the affected muscles and the application of a hot water bag will bring a soothing termination to suffering. Often the vague, undefinable restlessness so often seen in patients confined to bed can be quite effectively treated by massage of the arms, legs and back and induces a feeling of relief greater than is to be achieved by any combination of drugs. Properly considered, these may be thought of as purely nursing procedures; yet it is difficult to make a sharp distinction between the functions of the physician and of the nurse when the patient's comfort is at stake. While hospital procedure may require a back rub as part of the morning and evening care, the patient's comfort may make this a procedure to be carefully executed every four hours. Talcum powder freely sprinkled over elbows and knees may banish the annoying "burn" of hospital linen.

The pain due to simple abdominal distension may be effectively treated by a saline enema followed by a hot wet pack or turpentine stupe to the entire abdomen. On occasion the vague abdominal pain suffered by hospitalized patients is due to the too free use of cathartics or soap suds enemata, frequently too stimulating, actually even irritating to the delicate intestinal musculature.

In the hospitalized patient whose indefinite abdominal distress results from the abuse of cathartics, much relief and easy bowel action may be afforded by the ingestion of mineral oil by mouth or the nightly rectal injection of three ounces of cotton seed oil. In these and various other small ways the patient's stay in the hospital may be made more pleasant and his appreciation of the abilities of the medical practitioner enhanced. After all the patient does not have the information requisite to an appreciation of the meticulous care used in restoring compensation to his ailing heart; he is able to and does appreciate the relief of those (to the physician) minor ailments and discomforts which might too easily be dismissed with a nod of the head. The alcohol rub to his swollen, painful, aching legs, moved with difficulty, means more to the patient than the fact that he was completely digitalized and the edema removed in forty-eight hours without the slightest toxic sign. He is utterly unable to comprehend the meaning of the one; his entire illness,

to him, is expressed in the former. And by the relief of the pressing symptoms, not by the control of the underlying cause, does he form his opinion of the hospital and the doctors.

Excruciating pain generally demands morphine for relief, provided only that the course of its development must not be followed to determine operative intervention. For the patient who fears the prick of the hypodermic needle the same result may be achieved by placing the tablet of morphine behind the lower incisors and under the forward part of the tongue as by injecting it under the skin; soluble drugs are absorbed by this route as quickly as by subcutaneous injection. Then, allergy to, as well as the effect of, morphine and other drugs upon the process which they are designed to relieve must be considered; it is often unwise to give morphine to the toxic pneumonia patient except as a last resort to relieve painful pleurisy for the already insensitive respiratory center may be further depressed to the point that dangerous oxygen unsaturation of the arterial blood is promoted. Again, a small dose of morphine in combination with one of the barbiturates or hyoscine may serve the purpose better when it is desired to induce sleep after the relief of pain.

Even the sterile hypodermic injection is sometimes valuable. Combined with the proper psychotherapeutic approach it may be even more effective than morphine. I will not soon forget the student nurse who on the third night after an appendectomy begged for morphine so that she could get some sleep; for one reason or another, and largely to see whether it would work, I ordered a sterile hypodermic injection; within fifteen minutes she was fast asleep.

For the apprehension which is often connected in the patient's mind with his entry into the hospital much may be done by the intern who will sit down with the patient for a fifteen minute chat at which time all of the desired explanations should be given. A hot tub bath at bedtime followed by a glass of hot milk may insure a night's calm repose and make the terrifying routine of the hospital less difficult to face. Or, a sedative may be necessary. The bromides serve admirably for this purpose; but in a young lady, or even a matron, who will be made unhappy by the acne which the bromides sometimes cause, two grains of barbital thrice daily will do admirably. Indeed, small doses of barbital may even be generally preferred to the bromides. The newer derivatives of barbituric acid do not seem superior to this drug which seems to have fallen into undeserved disrepute. In any event, whatever drug is prescribed it should be gradually given in diminishing dosage until it is no longer necessary and

to the end that the patient may not unduly depend upon it.

The routine administration of a mild hypnotic on the first night in the hospital may be considered good medical practice; it is something of an ordeal for a patient, especially on his first night, to have to listen to the mumbling groans of seriously ill patients, or to the loudly uttered last will and testament of a dying man, or to the disordered protestations of his relatives. While not directly connected with his illness which properly loom larger in his own mind than the grief of relatives for the dying, his proper preparation for the distraction which is an occasional inevitable accompaniment of hospitalization will do much to develop within him a feeling of satisfaction with the hospital and of the doctors who staff it. For this reason it may even be justifiable to prescribe a hypnotic for patients in rooms on either side of the seriously ill person whose suffering is liable to prove an unwelcome interruption during the small hours of the night.

Chloral, a favorite prescription of Sir William Osler, seems to have been overlooked in the rush for the later derived barbiturates; it possesses the advantage of being entirely detoxified in the tissues whereas some of the newer preparations require the intermediation of the liver for their detoxification. Like all other drugs of its class, chloral is habit forming and its administration must not be continued over too long a period of time.

By the rational employment of the analgesic, sedative and hypnotic drugs, by the use of simple nursing or hydrotherapeutic or psychotherapeutic procedures and by the prescription of specific remedies for the relief of pain and discomfort and restlessness and all the vague aches of the hospitalized patient the intern can do much to enhance the reputation of his hospital and insure the gratification of the patient. More than this, he can, by unending attention to those minor manifestations of illness which are more real to the patient than the disease itself do much to insure a proper appreciation of the vital role that the profession can and does play in the relief of suffering and the cure of disease.

810 Metropolitan Building.

M. A. Michael, Philadelphia (Journal A. M. A., Oct. 17, 1936), states that many cases of internal hernia through the broad ligament, either postoperatively after the Webster-Baldy type of suspension or through fenestrae, have been reported. Only three other cases of internal hernia following a round ligament suspension of the Gilliam type have been found reported in the literature, although the occurrence seems such a likely one.

OPPORTUNITIES OF RURAL PRACTICE

FRANK G. MAYS, M.D.

WASHINGTON, MO.

A great deal has been said and written about the rural practitioner of yesteryear. Lamentations over his passing and eulogies to him have been heard on every stage and corner. Somehow, this personage won his way into the heart of the American populace and made his imprint upon their memories in a manner which has not been equalled before or since. When one has had the opportunity to know personally a few of these doctors and begins to reflect upon their qualities and characteristics, which have so indelibly left their imprint in the communities in which they lived, it is not at all difficult to analyze the cause for these impressions. The rural medical practitioner of that day and those who still live who belong to that class were, first of all, upright, honest, unselfish individuals who had either received an education beyond the average of their neighbors or whose desires and intellects spurred them on to obtain preeminence by their individual studies. This in itself set them apart from the majority of individuals in their neighborhood. Their calling of relieving pain and assisting at the darkest hours to which the average family is exposed, when they were the only individuals to whom the stricken family could turn and expect help, added to the reverential attitude of appreciation and thankfulness. These men were pioneers, both in fact of their standards of living and in the development of the practice of medicine in this country. It is no wonder that these forbears of ours have handed down to the profession of the present day a reputation for service that is extremely difficult for many of us to appreciate, and to which few of us can claim similar attainments.

Passing from the accomplishments and opportunities of the past to those of the present day, it seems to me that we would do well to ask ourselves if those men were the possessors of a special opportunity or if the same opportunity does not still exist in our rural districts? Are the folks who inhabit the rural districts not the descendants of the people on whom they practiced and whom they served; and would they not be just as appreciative for that same honest, conscientious service that was given their parents? It is true that rural districts have changed tremendously in almost every way. The improvement in roads, living conditions and the comforts found in the average home are especially notable, but have these improvements changed the necessity or desire for

adequate conscientious medical service within a reasonable distance? In my opinion, it has not. These people are just as anxious for and derive just as much satisfaction in having a competent medical adviser near at hand upon whom they can call when illness strikes. In spite of concrete highways leading to the larger centers, they do not like, of their own initiative, to go to these larger centers because of the increased expenditure of time and money. Thus, it is easy to see that the same opportunity awaits the modern graduate in medicine that was extended to his grandfather when he finished his course of studies. When I speak of rural practice, I do not think of the crossroads or of the one building general store with the doctor's office in the rear, because those things are no longer necessary. It is true that the rural practitioner may find it necessary to pass the general store and cross the crossroads in both directions, but he will do so on a better road in an automobile, and will be able to establish his home and office in a sizable country town not so many miles away where he can enjoy enough of the conveniences found in the city that those lacking will not be greatly missed. In addition, he will find that his home is situated in a much more friendly, considerate and neighborly community where his friends will be friendly, where his children can grow up in comparative freedom and safety from the hazards of the city and in a more healthful atmosphere. Such a physician's practice is built up among people whom he knows personally, and these people appreciate good medical service as much or more than any other class of people. They are willing to pay reasonably for these services. They do not expect to pay fancy fees, nor is it necessary for the doctor to charge fancy fees because he will find, after establishing himself, that his expenses and costs of practice are far below those of his city contemporary. He therefore can charge less for his services and actually have as much or more money in the bank at the end of each year than others practicing in larger cities and charging higher and less easily collected fees.

The problem of treating sick people is identical whether it is in a house in the city or in a house in the country. Scarlet fever is just the same in both places; pneumonia runs its course in either place; appendicitis has the same symptomatology no matter where you find it; and a competent well-trained physician can adjust himself to the situation and to the conditions under which he works with little difficulty.

One of the finest physicians that I have known, who has practiced in a small community throughout his lifetime, once said to me, "The real test of a doctor's competence is in how he

adjusts himself to work under whatever circumstances and with whatever facilities he has at hand."

If, upon establishing himself in a small community, our modern doctor will spend some time in thought in preparing himself and his office and his facilities for the practice of medicine as well as he has been taught it, he will have no difficulty in meeting whatever circumstances may arise. This is the pivotal point upon which depends any physician's ability to render proper service to his patients. If necessary facilities are furnished for him in the cities, well and good, but in the country office he is forced to make his own arrangements, and this he can do if he but wills to do it. There is no reason for a recent graduate to expect to find an established practice where all he has to do is to seat himself and to enjoy a lucrative income. But there is every reason to expect that such a practice can be developed by proper application of the things he knows and by industry. There are at the present time numerous opportunities throughout the smaller towns of the State of Missouri for younger men, well-trained as they are, to establish themselves and enjoy a highly satisfactory practice among the finest class of people in the world. These places can be located by anyone who sincerely desires to take up this kind of work.

There is an ever increasing tendency among the cults to establish themselves in just the type of place of which I write. Some of them have a central hospital to which complicated or surgical cases are sent. This shows a quick appreciation by these groups of any opportunity which presents itself.

It is a matter of regret that the medical graduate of today seems to have such a dulled conception of the actual advantage offered him of a quick, satisfactory, substantial practice in the smaller localities as compared to the long delayed, slowly built up practice in the larger city. It is not a question of a difference in medical training or competence of the rural practitioner and the city practitioner, for their problems, as stated above, are the same. Medical service in the country demands just as good, just as highly trained, and just as competent doctors as are needed anywhere.

Specialists, highly trained, extraordinarily competent in their various lines, are a necessity and complete the personnel of the medical profession, but these men see only a small percentage of the patients consulted daily, and no matter where the general practitioner may be located in the State of Missouri, he is closely enough linked with a larger city that the services of these competent men are available to him and his patients when they are needed. It is a mat-

ter of common experience that the patient rarely desires to seek the advice of a specialist until he has first been advised to do so by his personal physician, whom he knows and trusts.

I have touched but briefly on the financial remuneration of the men who choose to spend their lives in the smaller districts, and the only statement that I feel necessary here is that financial remuneration is adequate for a reasonable standard of living, and, in my opinion, once the practice is established, it is much more stable than it is in the city. Another point is that this adequate financial remuneration comes earlier in life and during the years when it is most needed by the medical graduate who finds himself in debt upon finishing his education. The greatest remuneration comes from that feeling of satisfaction, security and friendship which is obtained by close contact with one's friends and neighbors in a community of which the doctor can still be one of the leading, most necessary and most influential citizens.

WHEN THERAPEUTIC PNEUMOTHORAX FOR TUBERCULOSIS SHOULD BE INSTITUTED AND WHEN IT SHOULD BE DISCONTINUED

H. I. SPECTOR, M.D.

ST. LOUIS

Although the therapeutic possibilities of pneumothorax were suggested to us by the experimental work of Carson in 1821, the practical application of this form of treatment was not demonstrated until 1888 by Forlanini. The enthusiasm which resulted from the publication of Forlanini's paper in 1894 was followed by a period of apathy beginning in 1902 and lasting until the pioneering work of Brauer of Germany, Dumarest of France and Lapham and Webb of this country, reawakened a wider interest in the possibilities of pneumothorax treatment.

The advancement in our knowledge regarding the various phases of pneumothorax together with the growing popularity of the procedure, because of its simple technic and its favorable results, have led to its universal use.

The early publications on the subject disclose that therapeutic pneumothorax was regarded as a very delicate operation to be performed by a chosen few physicians on a relatively few se-

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lected cases, since recognized indications were comparatively few and the number of cases treated, therefore, were small.

In addition to uncontrollable hemorrhage, which is today an indication in late as well as in early disease, a unilateral progressive lesion was for a time the only other indication which called for this treatment. However, since the majority of patients who applied for treatment in those days had bilateral lesions, the phthisiologist gradually began to experiment with this type of case. (Fig. 4.) The side with the more extensive pathology was collapsed and the disease in the contralateral lung was disregarded. Time has verified the wisdom of this procedure and today in every sanatorium and in the offices of many clinicians will be found patients that fall in this category whose lives have been saved with this form of collapse therapy.

The high mortality in the tuberculous pneumonias has long challenged the therapeutic ability of the phthisiologist. This acute type of disease was formerly considered unsuitable for pneumothorax treatment. Of recent years one perceives the pendulum swinging to the opposite side¹ so that the more experience one has with collapsing this type of case the more encouraged one is with the possibilities of successful pneumothorax treatment in such individuals.

The frequently fatal results in the progressive bilateral fibroulcerative cases were probably responsible for the necessity of experimenting with this type of case and as a result simultaneous bilateral pneumothorax which was first introduced by Ascoli² in 1912 is now being tried in selected cases. Although there are several favorable reports in the literature,^{3, 4, 13, 14} it is, at the present time, too premature to evalu-

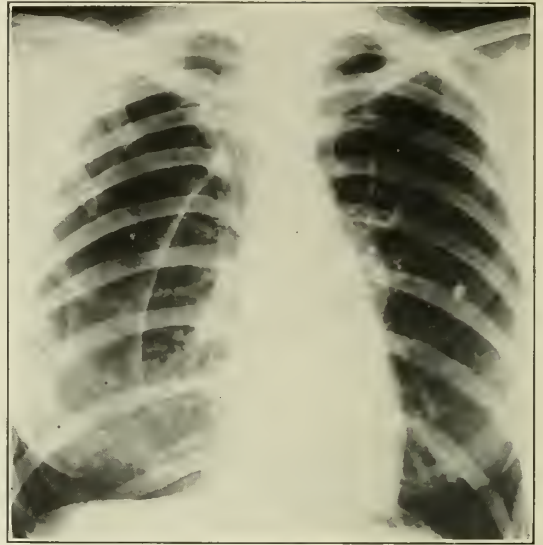


Fig. 2. Reexpanding lung.

ate the ultimate results of this relatively recent experiment. In the writer's opinion, based on a rather limited experience with simultaneous bilateral pneumothorax, this form of therapy has many potential dangers and for this reason few indications.

An indication for pneumothorax which has not been sufficiently stressed is a unilateral tuberculous atelectasis. For a long time this pathologic condition was considered to be the result of a chronic fibrosis of the lungs with an accompanying chronic adhesive pleurisy and because of this latter condition therapeutic pneumothorax was considered an impossibility. The work of Packard⁵ and others has opened the eyes of many to this error in interpretation and the beneficial results of pneumothorax in this type of lesion is now beginning to be appreciated.

Another indication for pneumothorax which is gradually gaining recognition is the persistent finding of tubercle bacilli in the sputum despite a paucity of symptoms.⁶ Patients in this class often are denied social and economic advantages until the positive sputum is converted into a negative one. Therapeutic pneumothorax frequently solves the problem in these cases.

A caseous peripheral lesion which often leads to a spontaneous pneumothorax is not uncommonly benefited by supplementary artificial re-fills, since the latter aid in the healing of the pathologic process. This lesion is frequently unrecognized and not until the sudden and dramatic precipitation of dyspnea takes place does one realize the possibility of a beginning hidden active peripheral lesion in the lung.

Artificial pneumothorax is frequently indicated in pleural effusions with underlying tuber-

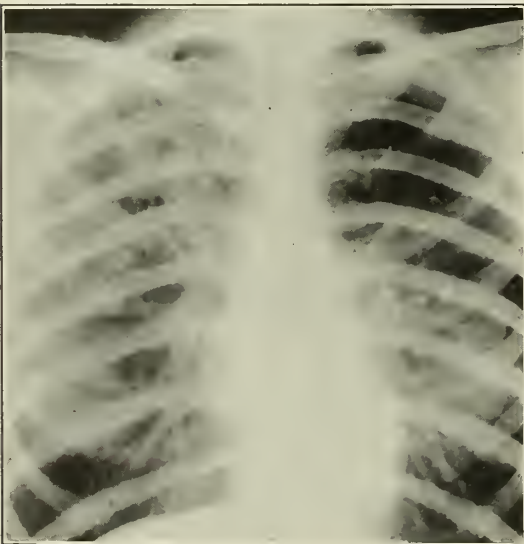


Fig. 1. Cavity in first and second interspace.

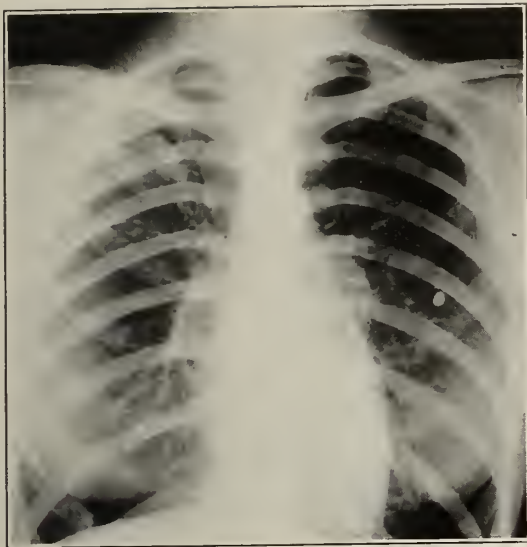


Fig. 3. Cavity replaced by a fibrotic and calcified area, lung completely reexpanded.

culous pulmonary pathology for the purposes of preventing reaccumulation of fluid and the formation of pleural adhesions.

As a measure to control pleural pain pneumothorax is only occasionally indicated. It is questionable in the mind of the writer whether this procedure is justifiable in patients that do not present definite pulmonary pathology.

The use of pneumothorax diagnostically in obscure chest conditions and for therapeutic purposes in such nontuberculous conditions as lung abscesses,⁷ bronchiectasis and recently in lobar pneumonia will not be discussed since such discussion is beyond the scope of this paper.

In a general way it may be stated that the major indications for pneumothorax are as follow: Persistent pulmonary hemorrhages; unilateral, centrally or medially placed cavities; unilateral and certain bilateral lesions that fail to show improvement after a reasonable period of bed rest; patients with unilateral stationary lesions but with a persistent positive sputum; unilateral selected cases of tuberculous pneumonia and tuberculous atelectasis. It is obvious that there is a general trend for the broadening of the indications for pneumothorax, as pointed out in a previous publication.⁸

I have deliberately devoted the greater part of my paper to a discussion of the indications for the induction of pneumothorax because a great deal more is known about this phase of my subject than about the reexpansion phase of pneumothorax. Space does not permit a discussion of the counterindications except to mention that they are few in number. The only real counterindication is hopelessly far advanced disease.

The indications for pneumothorax are relatively clear cut when compared with the indications for the discontinuance of one.

The information that one gains from a review of the literature is rather meager and contradictory. One is impressed with the general tendency on the part of writers to evade an answer to the important specific question, When should artificial pneumothorax be discontinued? Recommendations for maintaining a pneumothorax vary from one extreme of six months to the other extreme of a lifetime. For instance, Forlanini found that in some cases good and permanent results had been obtained after six months. On the other hand Dumarest⁹ advocated the other extreme. It is known that some patients have received pneumothorax treatments for over ten years.¹⁰ Rist¹¹ is of the opinion that the minimum duration of treatment should be five years. Packard¹⁰ believes that an effective pneumothorax of two years' duration and a negative sputum for at least a year, give reasonable assurance that the lung may be reexpanded with safety.

The results of artificial pneumothorax in sanatoria covering a period from 1915 to 1930 as revealed in a recent report by a Committee of the National Tuberculosis Association¹² are interesting but do not contain definite information as to the duration of pneumothorax. The Committee disposes of the question as follows: "We may further add that from this study its discontinuance seems warranted in many cases after a reasonably adequate period of effective treatment which cannot be too dogmatically predicted."

Generally it may be stated that the published reports in the literature seem to indicate that

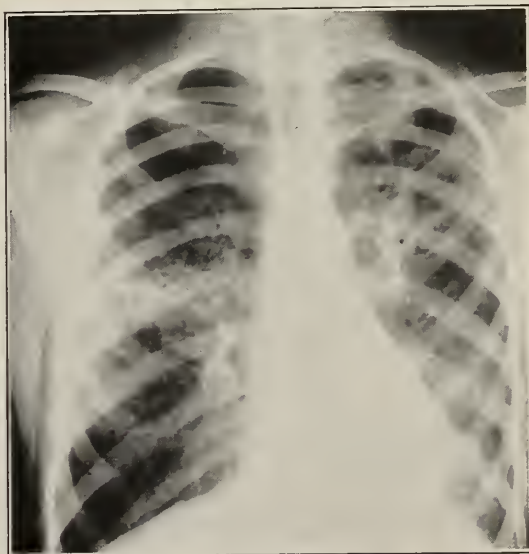


Fig. 4. Bilateral disease with cavities on left.

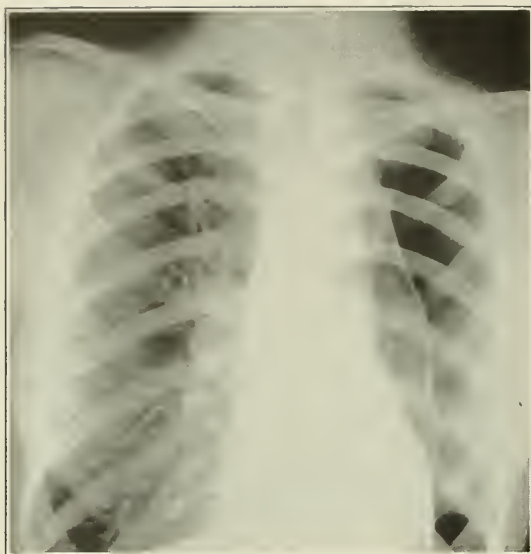


Fig. 5. Lung in process of reexpansion.

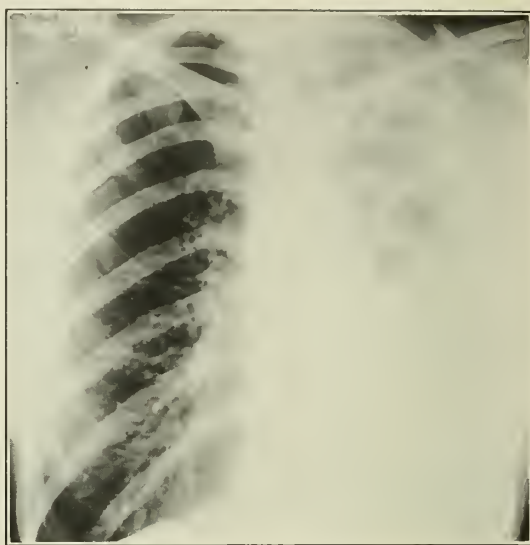


Fig. 6. Right lung completely healed and the left lung completely reexpanded. Note the thick pleura.

the chances for relapse are less in those cases that have received a longer period of treatment and that authoritative opinion is in favor of maintaining the collapse of the lung for two or three years in an average case.

If we remember that the main objectives in pneumothorax therapy are to cause a disappearance of symptoms, a disappearance of positive sputum and a closing of cavities, it becomes obvious that the question, when to discontinue a pneumothorax, can only be answered accurately after a study of the facts in each individual case. It is folly to state a period and attempt to apply it to each case. A complete and painstaking study of the clinical history of the case before collapse and during the period of collapse, the type of lesion, the condition of the contralateral lung before collapse and during collapse and the type of collapse are factors which must be considered before permitting the lung to reexpand.

It is self-evident that a patient with a small pulmonary lesion will recover sooner than one whose lesion is widespread. Exudative lesions with tendency to rapid cavitation will react differently and will need a longer period of collapse therapy than the slow progressive fibro-ulcerative lesions.

An ineffective collapse should be discontinued after a short period of observation and after one is convinced of the uselessness of the procedure. An obliterative pneumothorax will discontinue itself. Severe systemic reactions following pneumothorax therapy may call for early discontinuance of pneumothorax treatments. A reactivation of disease on the opposite

side or other serious complications may indicate cessation of refills.

The principles enumerated above are used by the writer as guides in determining the time when reexpansion would seem safe, as illustrated by two brief case histories.

REPORT OF CASES

Case 1. J. C., white female, aged 17, applied for an examination January 30, 1931. Her symptoms and physical examination were consistent with a moderately advanced active tuberculosis. Her sputum was positive. Roentgenogram (fig. 1) revealed involvement of upper half of right lung and cavity in region of first and second interspace. After a short period of bed rest artificial pneumothorax was done. Refills were given every ten days to two weeks and in January, 1934, the writer decided to permit reexpansion since patient was symptom free for over a year, had no sputum and was doing part time work without ill effects. Reexpansion was accomplished by increasing the time interval between refills. Figure 2 shows lung partially reexpanded on April 6, 1934, and figure 3 shows right lung completely reexpanded on October 5, 1934. The last refill was given on May 18, 1934. The cavity seen in figure 1 is closed and is replaced by an area of fibrosis with dense calcifications in center. The patient is well today and working. The duration of this pneumothorax was approximately three and one half years.

Case 2. Female, aged 20, reported for an examination on June 25, 1927. Her symptoms and physical examination revealed evidence of a far advanced bilateral active fibro-ulcerative tuberculosis with multiple cavities in the upper half of the left lung and with a cross infection in the middle portion of the right lung as seen in figure 4. Sputum was positive for tuberculosis. After a bed rest period of approximately four months, permitting the right lung to clear, a pneumothorax was done on the left side November 15, 1927. Refills were given at intervals varying from one week at first to seven weeks later. In January, 1934, the writer de-

cided to begin to reexpand the lung since patient had been symptom free and sputum free for over a year and a half and had been working for over a year. Figure 5 shows the lung partially reexpanded and figure 6 shows the lung completely reexpanded. Duration of collapse approximately seven years. Note the complete healing of the right side, the disappearance of the cavities on the left side and the markedly thick pleura on the left side. The patient has recovered and has recently married.

SUMMARY

In summing up the subject it is well to remember that despite the fact that the pneumothorax idea is over a century old there are today no set of rules in existence that can be applied to every case. Individualization in the therapy of tuberculous in general, and in reference to pneumothorax treatments in particular, is the key to successful treatment.

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ROLE OF SYPHILIS OF NERVOUS SYSTEM IN PRODUCTION OF MENTAL DISEASE: SURVEY OF VARIOUS FORMS OF NEU- ROSYPHILIS OCCURRING AT THE BOS- PSYCHOPATHIC HOSPITAL FROM 1912 TO 1934

Merrill Moore and H. Houston Merritt, Boston (*Journal A. M. A.*, Oct. 17, 1936), state that syphilis of the central nervous system was considered as the cause of the mental disease in 2,468 patients admitted to the Boston Psychopathic Hospital in the first twenty-two years of its existence—from 1912 to 1934. When corrections are made in the total admissions for the number of patients who were found to be "not psychotic" and for the number of readmissions, syphilis of the nervous system was considered the cause of mental disease in 9.3 per cent of the total.

THE COMMON DUCT STONE

LOUIS RASSIEUR, M.D.

ST. LOUIS

The purpose of this paper is to give our experience with patients affected by common bile duct stones at the Firmin Desloge Hospital during the years 1933, 1934 and 1935. During this period a total of 11,476 patients were treated in the hospital. There were 158 patients diagnosed as having gallbladder disease, about one out of every 72 patients. Of these 120 were females and 38 were males, almost four times as many females as males. Fourteen, approximately one out of every eleven cases of gallbladder disease, were complicated by one or more stones in the common duct. There were eleven females, aged respectively 31, 33, 33, 35, 42, 45, 47, 50, 58, 59 and 60 years; and three males aged respectively, 48, 59 and 73 years. Again, almost four times as many females were affected as males. The majority of the patients had had symptoms for ten years, one even nineteen years. The duration of severe symptoms varied from a short time to one year. The correct diagnosis was made before the operation ten times while in four of the cases the common duct stones were first discovered during the operation.

SYMPTOMS

1. Qualitative indigestion was present in all cases.
2. Pain and tenderness in the right side of the epigastrium was present in all cases at some time. The pain usually radiated outward to the back under the right shoulder blade or between the shoulder blades. The pain at times became a colic necessitating the use of morphine.
3. Seven, or one half the total number of our common duct stone patients, had jaundice when they were admitted to the hospital. Five of these seven patients had jaundice for one week and two were jaundiced for six consecutive weeks before coming to the hospital. There were seven other common duct stone patients who were not jaundiced when entering the hospital, but all of them had been jaundiced at various times. One patient had jaundice a number of times over a period of seven years, another during eight months, one two months, one one month and the three remaining patients more recently but prior to coming to the hospital. Jaundice, when present, was accompanied in each instance by colic-like pain of varying intensity but at no time could one palpate a distended gallbladder.

From the Surgical Department, Firmin Desloge Hospital, St. Louis University School of Medicine.

Read at the 79th Annual Meeting of the Missouri State Medical Association, Columbia, April 13-15, 1936.

4. Loss of weight seemed to be an important sign when considered with other concomitant symptoms. No one sign in itself is pathognomonic. The loss of weight was striking in some cases. One patient had lost 50 pounds in the preceding seven months, another 37 pounds in nine months, a third 32 pounds in six weeks, a fourth 30 pounds in one year, a fifth 21 pounds in two months, a sixth 10 pounds in three weeks and the balance lesser amounts over various periods of time.

5. Five of the patients had fever when they entered the hospital and one had Charcot's intermittent hepatic fever for a period of eight weeks when she came under my care. Nine patients had a normal temperature on the day of entrance.

PREOPERATIVE TREATMENT

The preoperative treatment was symptomatic in the cases which unquestionably showed no evidence of liver damage. In the severe cases glucose was given prior to operation and in the extremely severe, blood transfusion preceded operation.

LOCATION OF THE STONES

In three patients a stone was in the ampulla of the common duct but could be pushed in the supraduodenal portion of the duct. In the remaining cases the stones were in the supraduodenal portion of the common duct, in the hepatic ducts or in both common and hepatic ducts. Nine patients had stones in the gallbladder also while five cases had no stones in the gallbladder.

OPERATIVE PROCEDURE

In eleven cases the common duct was incised and drained. In three cases the stones were manipulated back into the gallbladder and removed with the latter. In five cases the gallbladder was not removed but drained.

POSTOPERATIVE TREATMENT AND COMPLICATIONS

Treatment.—The patients were permitted water by mouth in small quantities if they did not vomit. In the latter event, the nasal tube was used. Physiologic saline solution, 500 cc., was given by hypodermoclysis every six hours and at least 1000 cc. glucose, 5 per cent, in physiologic saline was given intravenously in twenty-four hours until the stomach retained the necessary liquids. In the severest cases, blood transfusions were also given. One patient received two blood transfusions before operation and three after operation.

Case No. 34-11279.

Complications.—One patient, female aged 60 years, with Charcot's intermittent hepatic

fever of approximately two months' duration, developed a staphylococcic abscess in the submaxillary salivary gland. For a time she improved after the operation and was benefited by two blood transfusions, one on the first and another on the fifth postoperative day; then gradually she grew weaker and died of sepsis and hepatic insufficiency on the twenty-sixth postoperative day.

Case No. 35-7789.

A second patient, a male aged 73 years, with gallbladder stones and one stone in the ampulla of the common duct, had pruritus and jaundice for six weeks prior to operation and had lost thirty-seven pounds in the preceding eight months. A blood transfusion was given before and after the operation. Prior to operation, the bleeding time was two and one half minutes and the clotting time four and one half minutes. The jaundice gradually increased. He had a secondary hemorrhage on the twelfth postoperative day, a disruption of the incision two days later, and died on the nineteenth postoperative day of hepatic insufficiency and beginning lobar pneumonia.

Case No. 35-5467.

A third patient, a female aged 33 years, with extreme jaundice and pruritus and occasional terrific colics for a period of six weeks, lost 32 pounds in weight. Her bleeding time was three minutes and clotting time ten minutes. She received two blood transfusions before operation. One three quarter inch stone was in the ampulla of the common duct but none in the gallbladder. She developed hepatic insufficiency and a secondary hemorrhage on the sixth postoperative day and a disruption of the abdominal incision on the ninth postoperative day. The secondary hemorrhage was stopped by gauze packing and three subsequent blood transfusions. She recovered.

The three cases described were in bad condition when seen by us and had on operation a dark green liver and a stone impacted in the common duct ampulla. Their extrahepatic bile ducts were dilated and the walls thickened by fibrosis and a little edema.

Case No. 35-8006.

A fourth patient, a female aged 58 years, had in addition to stones in all the major extrahepatic bile ducts, a large fibrosed spleen, a small green liver, a red cell count of 3,700,000 and a white cell count of 4600. She received six blood transfusions postoperatively. The jaundice increased and she died on the forty-second postoperative day. At the autopsy no additional stones were found in the biliary passages and the diagnosis of complicating Banti's disease was verified.

Case No. 35-12522.

A fifth patient, a female aged 45 years, became very irrational twenty-four hours after operation. Ten days later her mental condition became normal and she recovered.

COMMENT

Fourteen patients were subjected to operation; three of them died. These three had been seriously ill for one month or longer before coming to our institution. The first had Charcot's intermittent hepatic fever; the second had severe pruritus and jaundice and was 73 years old, and the third had stones in the common duct and both hepatic ducts complicated by Banti's disease.

The remaining eleven cases recovered. Three of these were clinically very serious and on operation showed liver damage in that the color of the liver was a deep green while the walls of the extrahepatic ducts were thickened by fibrosis and dilated. Two of these patients were 33 years old and the third 50 years old; otherwise they were well preserved. They responded favorably to blood transfusions and glucose solution.

Four of the patients that recovered were moderately severe and responded quickly to drainage of the common duct with a catheter.

In three of the patients whose ducts were dilated but not thickened by fibrosis, the stones could be manipulated from the common duct back into the gallbladder and probably were the least ill of our patients.

In March, 1936, an attempt was made to learn the present condition of the eleven patients who recovered from the operation. We located and received a reply to our questionnaire from ten. Nine reported living and well and one had been recently killed in an automobile accident. All had gained considerable weight. Four reported no discomfort after eating and five reported some discomfort after fried foods, cabbage, etc. Two had at times pain beneath the shoulder blade, two had pain in the scar sometimes, three had pain occasionally in the right hypochondrium and two had no pain. Eight had no more jaundice. One reported that she had had influenza which was accompanied by a little jaundice. One patient required two subsequent common duct operations before she was relieved and another patient required one subsequent operation two months ago to get rid of a common duct stone.

From the follow-up report, we feel that the operation improves them, makes them all increase in weight and relieves them of the danger of fatal complications, notwithstanding that a good number of them still get a little pain now

and then and have indigestion to greasy and sour foods.

The most careful search at the time of the operation should be made to see that no stones be overlooked in the common and hepatic ducts. When the extrahepatic and the intrahepatic ducts are very dilated it is at times impossible to be sure of having removed all the stones if more than one stone is present.

CONCLUSIONS

All patients with the signs of common duct stone should be operated on without delay. If they are complicated by Charcot's intermittent hepatic fever and hepatic insufficiency they should receive blood transfusions and glucose solution prior to and after operation.

All patients with jaundice of an obstructive origin should be advised to seek surgical relief when seen by the attending physician.

The shorter the duration of the disease and the younger the patient the better is the prognosis. If patients with gallbladder disease were operated on early there would be less chance for stones being found in the common bile duct.

NOTE: In preparation of the survey the following cases of Firmin Desloge Hospital were studied: 33-4598, 34-1870, 34-5229, 34-11279, 34-12861, 35-2979, 35-4494, 35-5254, 35-5467, 35-7789, 35-8006, 35-8148, 35-10768, 35-12522.

318 University Club Building.

AUTOPSIES

AN ANALYSIS OF PERCENTAGE INCREASES

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ST. JOSEPH, MO.

The question of autopsies in the general hospitals of smaller communities presents a peculiar problem. As a rule, they cannot appeal for autopsies on the basis of large free wards of transients and homeless, or for the teaching of students, or for the cause of some dedicated science or research. Instead, autopsy material must be used and requested for the clarification of individual case problems and the instruction to staff and interns to be gained by the revelation of the particular peculiar pathology of the material presented.

In this category are the two general hospitals of St. Joseph, Missouri, a city of 80,000. These hospitals of 220 and 140 beds and bassinets, respectively, averaging a total of 463 and 318 patients per month in 1935 with 4 and 3 interns, are under church control, one being actively administered by Sisters of Charity. Although the American Medical Association has raised its minimum requirements of autopsies for ap-

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proval of accredited hospitals from 10 per cent in 1929 to 15 per cent in 1930 and to 25 per cent in 1934, both hospitals had carried well on into 1934 with a very low percentage of autopsies, viz., 23.5 per cent and 11.8 per cent, with the result that both were in grave danger of losing their approved listing. This was seriously considered by the staffs and changes were made which have resulted in such decided improvement in both hospitals, starting in June, 1934, as to warrant careful analysis of the various factors of which the accompanying graph will explain much. These statistics include stillbirths which form .4 per cent to .7 per cent of the deaths, with about 24 per cent autopsied. Although the American Medical Association committee on autopsies states that stillbirths and stillbirth autopsies are not to be included in statistics it will be seen that these do not materially alter the percentages of autopsies. In addition, much knowledge of fetal and congenital pathology has been gained in the hospitals of St. Joseph by requesting stillbirth autopsies.

It was recognized that in Missouri autopsies have a special significance as the law forbids the retention of specimens. Only material sufficient for a microscopic examination may be permanently retained. This, however, may be circumvented by a special permit signed by responsible persons permitting the retention of scientifically important specimens. Hence, outside of surgical specimens, the autopsy is the only source for pathological teaching of the interns and staffs in our hospitals. And this must hold true for all small hospitals lacking the facilities for preservation of interesting specimens. These autopsies have afforded excellent diversity of material which is now reviewed at monthly pathological meetings, staff and other meetings as the occasion arises for the interns.

Coincident with a change in policies in June, 1934, the hospital pathologist was appointed chief-of-staff of hospital A. Every opportunity was taken to impress staff and interns with the importance of autopsies and the opportunity they afford to study anatomy, applied anatomy, cadaver surgery, etc. The supervisory staff and Sisters of the institution became actively interested in assisting and procuring permissions. At the same time a conference with the undertakers of the city, who had previously been fighting autopsies, resulted in the two hospitals releasing all bodies for vascular embalment, except in cases of suspected embolism, etc., following which the undertakers were to return the corpses for postmortem examination. This has added somewhat to the problems of the pathologist, but the cooperation from the undertakers has been excellent. These factors alone

in hospital A sent the percentages of autopsies up from 15 per cent to a peak of 73 per cent with a year average of 54.5 per cent.

Question may arise as to the influence played by the percentage of welfare or charity work, particularly as the coroner may be asked for autopsies in such cases. The influence in these factors appears to be overrated as in the year prior to June, 1935, 30 per cent of all cases in hospital B were welfare. In this period the autopsy percentage was 32.5 per cent with the coroner passing on 25 per cent. In the four months after June, 1935, only 10 per cent were welfare cases, but there were autopsies on 40 per cent of all hospital deaths, with the coroner consenting to 31.6 per cent. Welfare cases have proved notoriously difficult both as patients as well as for procuring permission for postmortem examinations on their bodies. Efforts to have welfare boards give their approval to mandatory autopsies on welfare deaths have not been successful.

In securing permissions for postmortems staff members are strongly urged to assist whenever interns are encountering difficulty. The crux of the whole question, however, finally devolves upon the intern staff. Hospital B for several years has offered prizes for the highest percentages of autopsies. While this appeared effective in 1933 as compared with the records of hospital A, subsequent periods show that the grade and quality of the intern staff and the drive of the attending staff are the factors of importance. In hospital B in January, 1935, a new and fifth intern was added to the intern staff. This coincides with a rise in the percentage of autopsies which later fell. But in the six months of that internship this intern secured two-thirds as many autopsies as the highest total of any of the full-time interns, and resulted in bringing autopsy percentages up from 21.5 per cent to 32.5 per cent. In July, 1935, a carefully selected intern staff from good schools started poorly but since then has shown itself keen and eager students and hard workers. Hospital charts are kept carefully up to date, full of detail and show careful clinical examinations, and the autopsy percentage has reached 40 per cent.

Graphs show that an increase in the patients above an arbitrary figure of 110 to 120 per month per intern does result in an evident decrease in the autopsies with a decrease in patients coinciding with an increase.

Finesse, graciousness and kindness are all important in securing permissions for autopsies. This is a time of great distress for the bereaved. All considerations shown the dying patient, particularly in easing his pain, and any assistance

3. Cooperation with undertakers is urged. In this case, most corpses are embalmed prior to postmortem examination.



SPECIAL ARTICLE

PHYSICIANS AND OLD AGE PENSION TAXES UNDER THE SOCIAL SECURITY ACT

The Federal Old Age Pension clause of the Social Security Act goes into effect on January 1, 1937. This clause of the Act which applies to physicians, and any employer, employing one or more individuals is easily confused with the clause covering unemployment insurance which applies to only those employers of eight or more employees. The Old Age Pension clause includes all physicians who employ one or more persons. The following editorial from the *Journal of the American Medical Association* gives a good explanation of the Old Age Pension clause, especially as it applies to physicians, and for the benefit of members who may not have read this editorial in THE JOURNAL of the A. M. A. it is repeated.

Preliminary procedures are under way to make effective the old age benefit provisions of the Social Security Act. The regulations that have been promulgated by the Bureau of Internal Revenue looking toward the assembly of the mass of detailed data with respect to the employers and employees from whom the taxes are to be collected are of immediate interest to physicians.

Each person who on November 16 was the employer of one or more persons, subject to the exceptions noted, must have reported that fact prior to November 21 to the postmaster from whose post office the employer obtained his office or business mail. He must also have made application on form SS-4 for the assignment of a number—an "identification number" to be used for identification purposes in connection with the collection of taxes under the act. Physicians who were employers on the date named were required to comply with this requirement. If they failed to do so they should now communicate with their local postmasters for instructions as to how to proceed to make the delayed application. A physician who became an employer after November 16 must also apply for an identification number within a period of thirty days after the relationship of employer and employee is established. This application, the regulations provide, must be made to the field office of the Social Security Board in the area in which the office of the physician is situated or, in the absence of such field office, to the Social Security Board at Washington, D. C.

Persons who were employees on November

24 are likewise required to obtain numbers, called "account numbers," by filing application on form SS-5, on or before December 5, with the local postmaster. Persons becoming employees after November 24 must also file application for numbers thirty days after the employment begins. While physicians generally are considered, under the regulations, as independent contractors and consequently not subject to the taxes imposed on employees, if physicians are employed on a full time or part time salary basis they are apparently to be considered as employees. Such physicians must file application for "account numbers" on form SS-5. As employees they are subject to the tax on employees, and their employers must pay the employer's tax with respect to them.

Certain employments do not come within the old age benefit provisions of the Social Security Act. Among the exceptions are agricultural labor, domestic service in a private home, casual labor not in the course of the employer's trade or business, service performed by an individual who has attained the age of 65, service performed in the employ of the United States or of any state or subdivision or instrumentality of either, and service performed in the employ of a corporation, community chest, fund or foundation organized and operated exclusively for religious, charitable, scientific, literary or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private shareholder or individual. Physicians who employ only persons embraced within these excepted employments or who are themselves engaged in such excepted services are not required to make application for identification or account numbers.

Employers' and employees' taxes will be collected by means of monthly returns to be filed by employers, who not only must pay to the local collector of internal revenue the tax imposed on employers but also must deduct from the wages of their employees the employee's tax and transmit that also to the collector. The first returns will be due not later than March 1, 1937, covering wages paid for services rendered during the month of January. The regulations that have been promulgated cover in detail the records that must be kept by employers, the method of executing returns, the information they must contain and other matters relating to the tax. Physicians should promptly familiarize themselves with all the requirements, so that as much confusion as possible may be avoided. THE JOURNAL of the A. M. A. will from time to time offer suggestions to aid physicians in meeting the requirements of the act.

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JANUARY, 1937

EDITORIALS

THE FUTURE MEMBER OF THE MEDICAL ASSOCIATION

The Missouri State Medical Association takes this opportunity to congratulate the members of the intern class of 1936-37 upon the completion of their course of study in medical school and their entrance into an apprenticeship for the practice of medicine. More than this, it takes the opportunity to invite them to membership in their local county society, the state organization and to become fellows in the larger national group, the American Medical Association. Should the intern choose to avail himself of his privilege to become one with his fellow practitioners, he will gain pleasure and derive satisfaction from the community of interest and effort which characterizes the local societies throughout the state. He will create for himself the opportunity to embark upon a continuous postgraduate course in medicine through regular attendance at the meetings of his society and hearing the contributions of his confreres upon the scientific aspects of medical practice; even of greater importance, he will have the chance of enhancing the respect which his fellow members accord him through participation in the discussions of the papers presented.

The physician of tomorrow is well aware of the threat now offered to medical practice; he has heard whisperings of regimentation of the profession, of the socialization of medicine, of new and different forms of practice. He must realize that individually he is powerless to combat the rising tide of social demand for change; alone, he will be swept along, a pawn in the powerful surge of the wave of social unrest and economic reorganization; that engulfment with loss of personal individuality will follow is not to be doubted.

On the other hand, as a member of organized medicine and representative of his own

class he will be able in association with his fellow members to offer concerted opposition to the engulfing wave and if not stem the tide, at least have the opportunity of determining in some degree his own destiny.

The Missouri State Medical Association needs the counsel of all its members in meeting an emergency; it needs to train its potential members in the traditions and purposes of medical idealism, to inculcate upon them the wisdom of the elders in the battle for the greater good of mankind and the profession.

However, the problems of the organized profession are not the only ones which the intern must face. He has his own personal problems on his entrance into practice, e. g., the type of practice he shall seek, the hospital with which he desires affiliation; he is concerned over the myriad of questions and doubts which assail every young man about to enter upon his life's work. At the present time these personal problems are much more vital to him than are the more nebulous ones affecting the future organization of a system of medicine. Realizing this, the Missouri State Medical Association offers to these young men, whether or not they may be members of the organization, its good offices, its advice and counsel. The office of the Association, located in the Missouri Theater Building, St. Louis, will be happy to offer any assistance or information which may aid the intern of today in charting his course for tomorrow. Indeed, the organization of the Association is such that it is peculiarly fitted to offer such advice. In each area of the state there is to be found a Councilor of the Association. This officer is well acquainted with the conditions of medical practice in his locality and through him the intern may ascertain the opportunities for success which may reasonably be his in that locality. The State Association invites interns to avail themselves of its desire to help.

Indeed, this issue of THE JOURNAL is chiefly devoted to the problems of the intern. It was in the spirit of helpfulness and in recognition of the obligation which it owes to medical youth that the officers and councilors of the Association dedicated this number to him. The papers appearing in this issue have been specially prepared for the purpose of answering the questions of the intern; some of them deal with the simple, yet difficult, problems which present themselves in ordinary hospital practice; others are devoted to a discussion of the more abstruse concepts of the obligations of internship and the opportunities of medical practice. The officers of the Association are hopeful that each paper will prove valuable to those young physicians in whom they seek to show their interest, to whom they offer their services and who in

turn must dedicate themselves to the preservation of the idealism and high humanitarian practices of the true physician.

We are hopeful that some of the interns to whom this message goes will appreciate the sincerity of purpose and the desire to serve that prompts this issue. We are confident that some of them have already felt within themselves the desire to serve, to become active workers in their local societies. We shall anticipate that some of them will avail themselves of the opportunities and privileges of junior membership in their local societies. We shall welcome those who join and entrust them with an equable share of the task which we now share. To those who are not yet ready to become one of us we extend the invitation of membership and in the meantime assure them of our willingness to serve them.

An alert and enlightened membership will be required to chart the future course of the profession. Youth will be in demand to carry on the burden already becoming great for the elders. This call is to youth and for youth to the end that the noblest of the professions and the noblest of the arts may preserve itself and carry on in the traditions and with the spirit of its masters and in a manner satisfying to itself.

BE A FELLOW

The American Medical Association membership numbers 102,000; of this number 62,997 are fellows.

Membership in a county society and the State Association automatically carries membership in the American Medical Association. The physician has full privileges in his own community by such membership but he does not have the larger opportunities that fellowship in the American Medical Association gives him.

Two of the most outstanding advantages of fellowship are receiving the *Journal of the American Medical Association* and the privilege of participation in the scientific sessions of the Association. Only fellows can attend the Sessions, take part in discussions, present papers in the fifteen sections or serve as members of the House of Delegates.

The House of Delegates determines the policies of the Association. The Board of Trustees is the governing body between sessions and administers the affairs of the Association. The Annual Sessions of the Association are more largely attended than are those of any other medical organization. The scientific presentations are made through fifteen sections, and the scientific exhibits and the technical exhibits keep

the physician in touch with new apparatus and products.

The service and facilities of the offices of the American Medical Association are available to members but without *THE JOURNAL* of the A. M. A. there is little contact with headquarters or opportunity for the physician to know of the numerous activities and the splendid work of the Association or to profit fully therefrom.

It was through the Council on Medical Education and Hospitals of the Association that medical schools and hospitals in this country have attained a standard recognized throughout the world. Details on all institutions are maintained in the office and all possible cooperation is given institutions in their efforts to be approved. The Council cooperates with licensing boards and interests itself in reciprocal relations for physicians and improving medical practice laws. The Council will give information about ratings on medical colleges, hospitals and other medical institutions; postgraduate courses; residencies; internships; licensure; reciprocity; information and statistics on medical education, hospitals, clinical and radiological laboratories, and many other related subjects.

The Council on Pharmacy and Chemistry offers protection to physicians in choosing proprietary remedies. Seventeen scientific men, each an authority in his special field, make up the Council. Newly introduced medicinal preparations are analyzed and findings are reported in *THE JOURNAL* of the A. M. A. and in "New and Nonofficial Remedies" published annually. A well equipped laboratory is maintained for these analyses.

The Bureau of Investigation is a clearing house of information on "patent" medicines and all forms of quackery, medical fads and fakes.

The Council on Physical Therapy, consisting of clinicians, physicists, physiologists, pathologists, radiologists and surgeons, was established for the purpose of gathering and disseminating information on the therapeutic value of certain devices and methods employed in the administration of physical therapy. A list of devices investigated and reported on by the Council is maintained in the headquarters office and articles in *THE JOURNAL* of the A. M. A. report these findings.

The Committee on Foods is authorized to use the prestige of the Association in promoting honest advertising and quality of foods. The decisions of the Committee are receiving general recognition.

Instruction to the laity in health is the principal work of the Bureau of Health and Public Instruction. This is carried out by the publication of *Hygeia*, radio broadcasts and the fur-

nishing of speakers, posters and pamphlets to lay organizations.

The Bureau of Legal Medicine and Legislation keeps in touch with all legislation and court decisions of interest to physicians.

All phases of general economics which have a bearing upon the practice of medicine are studied by the Bureau of Medical Economics. It attempts to study and advise on all economic problems confronting the physician.

The Association maintains a library where more than 1200 medical journals, domestic and foreign, are received regularly and many abstracts from these journals are published in *THE JOURNAL of the A. M. A.* Material on medical subjects may be borrowed from the library.

These are a few of the activities of the Association maintained for the physician. Many of them are available to members, others only to fellows. The American Medical Association is an organization with which the physician should be in as close contact as possible to derive as much as possible from its many benefits. This can be done only by being a fellow.

All members of county societies in good standing are eligible to become fellows of the American Medical Association. Formal application must be made to the American Medical Association and fellowship and subscription to *THE JOURNAL of the A. M. A.* are included in one annual payment of \$7.00.

THE ALLERGIC ABDOMEN

One of the distressing problems of medicine has to do with the complaints of the patient in whom all of the usual diagnostic tests reveal no evidence of pathology. In particular, abdominal pain not associated with manifest disease of the stomach, intestines or gallbladder, yet undoubtedly arising within the intestinal tract, is the cause of continued distress in the patient and of unending perplexity to the physician. Spasm of the pylorus and of the small intestine, the concomitant of the acute attack, may not even be discerned by roentgenogram because the allergen producing the spasm is not in the body at the time of the examination. In general, the efforts of leaders in the field of intestinal allergy have not met with the widespread acceptance and recognition that they deserve. Yet, every physician is cognizant of the inability of certain of his patients to digest certain food-stuffs; the intolerance is vaguely described as indigestion, perhaps manifested by belching, nausea, vomiting, diarrhea, sometimes by urticaria or angioneurotic edema. The Arthus's phenomenon of the laboratory is forgotten in seeking the explanation for these bizarre symptoms

and in finding an explanation for other as yet unexplained instances of abdominal pain. The seemingly most careful diagnostic study may still lead to an exploratory laparotomy in which no evidence of pathology is uncovered.

Fries and Merrill¹ have recently made a careful study of forty children admitted to the Kings County Hospital on account of abdominal pain simulating an acute surgical condition in the abdomen in whom for some reason intervention was delayed to the point that the child left the hospital symptom free. They suspected one fourth of these patients to have suffered from an allergic abdomen for there was in these cases a history of familial and personal allergy, of previous gastro-intestinal symptoms, sometimes of specific food sensitivity, and either negative or atypical abdominal findings. In some of their cases the history and leukocyte count were typical of acute appendicitis but the abdominal findings were inconclusive and the differential count occasionally showed an eosinophilia. In both child and adult the pain is usually localized about the umbilicus; in contradistinction to the findings in an acutely inflamed Meckel's diverticulum there is no fever. In still other cases the abdominal pain and distress recur in subacute attacks (or present themselves as a chronic disturbance), are not suggestive of intra-abdominal inflammation but rather of spasticity of the intestinal musculature.

Sir William Osler over forty years ago suspected the existence of the condition now known as intestinal allergy. Thirty years ago Rosenau and Anderson proved it in the laboratory; they made guinea pigs sensitive to milk and eggs by overfeeding with these substances. There has been an abundance of clinical evidence² to substantiate these experiments; the attack may even be attended by all the signs of impending dissolution.

The mechanism of intestinal allergy remains obscure. The most reasonable explanation appears to be that a break in the integrity of the intestinal mucosa, possibly the result of an insufficiency of the digestive juices, permits the entrance of protein molecules into the blood streams; these protein molecules then act as an antigen and produce a specific precipitin; on a later occasion the entrance of the same protein molecule into the body is attended by a reaction between antigen and precipitin, producing the allergic attack. At least it seems clear that without the presence in the host of some antibody allergic symptoms will not follow. This reaction undoubtedly is expressed by local edema and smooth muscle spasm.

1. Fries, J. H., and Merrill, G. A.: Allergic Abdominal Pain in Children, *Am. J. Dis. Child.* **52**:1107, 1936.

2. LaRoche, G., and Rowe, A. H.: *Alimentary Anaphylaxis*, University of California Press, Berkeley, 1930.

Fries and Merrill suggest that if the offending foodstuff is suspected it may be given in large amounts in a symptom free interval for the purpose of producing an attack; if evidence of allergy does not appear within twenty-four hours (usually less) it may be concluded that the suspected foodstuff is not at fault. Often-times, elimination diets offer the only means of determining the causative substance as it is well known that skin tests are notoriously unreliable; this curious phenomenon is explained by the hypothesis that certain body tissues, and even parts of the same tissue, may be sensitized whereas others are not.

Therapeutically, elimination of the offending foodstuff is to be sought; dilute hydrochloric acid, two to four cubic centimeters with meals, is sometime efficacious; antispasmodics are of little value. Fries and Merrill are now prescribing small doses of ephedrine, frequently repeated, to control the acute attack.

In the more chronic cases there is often an associated gastritis with achlorhydria, and perhaps achylia. Bray³ advises daily lavage of the stomach with warm water containing hydrogen peroxide in an amount increasing from two to fifteen cubic centimeters to the pint until no more mucus appears in the washings; such treatment may restore the normal functioning of the gastric glands. In order to assure more perfect digestion of ingested protein dilute hydrochloric acid is given with meals; sometimes left in the stomach after lavage.

While the treatment of the allergic abdomen will continue to be often unsatisfactory, while even elimination diets may fail to reveal the causative allergen, needless exploratory operations may be prevented by remembering that localized edema and smooth muscle spasm, even a palpable viscus, may be induced by hypersensitivity to certain foodstuffs. In particular, if the abdominal findings are not conclusive and if there is an allergic history, then surgery may be safely deferred. In the case of children who so often complain of vague abdominal pain, especially within a few minutes of eating, much may be accomplished by the judicious exhibition of elimination diets. The formation of bad food habits may be avoided by realizing that the child's refusal to eat certain foods may be intuitive or the result of earlier painful experience. Finally, the possible role of allergy in explaining the syndrome of vague abdominal pain deserves wider recognition. The four to seven days required for testing individual foodstuffs in the elimination diet régime may prove unexpectedly beneficial.

3. Bray, G. W.: *Recent Advances in Allergy*, P. Blakiston's Son & Co., Philadelphia, 1931, p. 351.

WARNING

A man who uses various aliases has been appearing in this and adjoining states in the capacity of repairman of medical instruments. He solicits a physician for the work, taking the instruments with him and fails to return. In one county he claimed to represent Roberts & Co., Kansas City. We find no such company listed in the directory.

NEWS NOTES

Dr. Frank D. Dickson, Kansas City, was a guest speaker at the Postgraduate Medical Assembly of South Texas held at Houston, Texas, December 2, 3 and 4.

Dr. Nelse F. Ockerblad, Kansas City, was a guest speaker at the annual meeting of the Southwestern Medical Association in El Paso, Texas, November 19, 20 and 21.

Mr. Charles A. Freck, formerly with the DuPage County (Illinois) Tuberculosis Society, began his duties as executive secretary of the Missouri Tuberculosis Association with headquarters in St. Louis on January 2.

The St. Louis Society for Mental Hygiene held an organization meeting on December 14 at the Kingsway Hotel, St. Louis. The St. Louis Society is a chapter of the Missouri Society for Mental Hygiene which has headquarters in Columbia.

The American Society for the Control of Cancer has begun organization of a "woman's field army" in twenty-five states in which committees on cancer of state medical associations are active and will direct the work. The purpose of the organization is the dissemination of educational material on the control of cancer to the laity. The organization will be completed during the week of March 21 to 27, 1937.

Dr. Francis Reder, St. Louis, was the guest speaker at a meeting of the Adams County (Illinois) Medical Society at Quincy, Illinois, on November 24. The meeting was a jubilee celebration of the fiftieth anniversary in the practice of medicine by Dr. Melinda C. Knapheide Germann and Dr. J. W. Edward Bitter, Quincy. Dr. Reder was a guest speaker recently at a meeting of the North Central Illinois Medical Society at Streator, Illinois.

Dr. Elias Potter Lyon, Dean Emeritus of Minnesota State University Medical School and former Dean and Professor of Physiology of St. Louis University Medical School, delivered the annual Alpha Omega Alpha address at St. Louis University School of Medicine on December 3. His subject was "William Beaumont, the Backwoods Physiologist."

Dr. Elmer D. Twyman and Dr. Thomas G. Orr, Kansas City, and Dr. Fred W. Bailey, St. Louis, appeared on the program of the forty-sixth annual meeting of the Western Surgical Association which convened in Kansas City December 11 and 12, 1936. Dr. Twyman's subject was "Prognosis of Osteogenic Sarcoma"; Dr. Orr spoke on "An Incision for Complete Breast Amputation," and Dr. Bailey discussed "The Problem of Preventive Surgery." Dr. Fred W. Bailey, St. Louis, was elected president of the association for 1937 and Indianapolis was chosen as the next place of meeting.

Perry, Chariton and Ste. Genevieve county medical societies have paid dues for all their members for 1937. Last year Chariton County Medical Society was the only society in which all members paid dues previous to January 1. Perry County Medical Society was the first society to remit all dues this year, all members having paid by November 27, 1936. Chariton County Medical Society reported all 1937 dues paid on December 1, 1936, and Ste. Genevieve County Medical Society reported all dues paid on December 15, 1936. These county societies have been placed on the Honor Roll.

The American Association for the Study of Goiter is again offering the Van Meter prize award of \$300 and two honorable mentions for the best essays submitted concerning experimental and clinical investigations relative to the thyroid gland. This award will be made at the discretion of the Society at its next annual meeting to be held in Detroit, Michigan, June 14, 15 and 16. The competing manuscripts, which should not exceed 3000 words, must be presented in English and a typewritten double spaced copy sent to the corresponding secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania, not later than April 1, 1937. The association will publish the manuscript receiving the prize award in its annual proceedings and reserve a place on the program of the annual meeting for presentation by the author. This will not prevent its publication in any journal selected by the author.

Dr. Edwin C. Ernst, St. Louis, was presented with a gold medal by the Radiological Society of North America for his research in the treatment of cancer and in measuring units of the roentgen ray. The award was made on November 3 at the meeting of the society in Cincinnati. Dr. Ernst has been president of the Radiological Society of North America and the American Radium Society and has been chancellor of the American College of Radiology. The award has not been made for several years. Dr. Ernst has interested himself, aside from definite research, in lowering the cost of roentgen ray, in coordinating information, in increasing voltages and in standardization of dosage.

Drs. Ferdinand C. Helwig and C. Edgar Viriden, Kansas City, will be guests of the Buchanan County Medical Society on January 6 at St. Joseph and deliver addresses under the auspices of the Cancer Committee of the Association. Dr. Helwig will speak on "Diagnosis and Treatment of Cancer of the Rectum" and Dr. Viriden will discuss "Roentgen Ray Diagnosis of Diseases of the Colon."

On February 2 Drs. E. C. Ernst and Warren R. Rainey, St. Louis, will be guests of the St. Charles County Medical Society and speak under the auspices of the Cancer Committee. Dr. Ernst will talk on "Roentgen Ray Aid in the Diagnosis and Treatment of Diseases of the Colon" and Dr. Rainey will speak on "Cancer of the Rectum."

St. Louis Medical Society, following the precedent set by several other medical organizations, has created a Medico-Legal Committee and empowered it with authority to proceed toward the solution of the problem of corporate medical practice in St. Louis. The chairman of the committee is Dr. Max J. Bierman and the members of the committee are Drs. Paul R. Nemours and Edward J. Helbing.

Decisions in the courts in other states have encouraged the St. Louis Medical Society to proceed in the solution of this problem. It has been definitely decided in some courts that the corporate practice of medicine is illegal. What constitutes the corporate practice of medicine is of course a question for the courts to decide.

The committee is appealing to members of the Association not only in St. Louis City but throughout the state for financial contributions to assist the committee in the prosecution of its duties. Naturally such an undertaking cannot be brought to a conclusion without the expenditure of a considerable amount of money. Remittances should be made to St. Louis Medical

Society, 3839 Lindell Boulevard, St. Louis, and instructions given to place the sum in the Medico-Legal fund.

The following members responded to invitations of the Postgraduate Committee of the State Association to deliver addresses at recent meetings of the component county medical societies:

Drs. G. V. Stryker and Franz Arzt, St. Louis, were guests of the Marion-Ralls County Medical Society at Hannibal, October 9. Dr. Stryker spoke on "Skin Signs of Hypovitaminosis" and Dr. Arzt on "Treatment of Subacute Pelvic Inflammations."

The Buchanan County Medical Society had as its guest at St. Joseph on November 4 Dr. D. K. Rose, St. Louis, who presented an address on "Importance of Bladder Function in Dealing With Infection."

On November 6, Dr. Adrien Bleyer, St. Louis, was the guest of the Marion-Ralls County Medical Society at Hannibal and spoke on "Mongolism."

The Jasper County Medical Society had as its guest on November 17 at Joplin Dr. Richard L. Sutton, Jr., Kansas City, who spoke on "A Trip From Norway Into the Arctic Circle."

Drs. Harry M. Gilkey and Richard G. Helman, Kansas City, were guests of the Chariton County Medical Society at Brunswick on November 24 and delivered talks on "Toxemias of Pregnancy" and "Tuberculosis in Children" respectively.

Drs. Samuel B. Grant and Lawrence D. Thompson, St. Louis, were guests of the Six County Group at Sikeston on December 10. Dr. Grant spoke on "Anginal Diseases of the Heart" and Dr. Thompson spoke on "Pneumonia."

The Postgraduate Committee and the Committee on Health and Public Instruction (McAlester Foundation) invited the following members to address meetings:

Dr. M. Pinson Neal, Columbia, was the guest of the Adair County Medical Society at Novinger on December 4 and spoke before high school students in the afternoon and before the Parent-Teacher Association in the evening, both addresses on "Appendicitis."

Drs. E. Lee Miller, Kansas City, and M. Pinson Neal, Columbia, were guests of the Audrain County Medical Society at Mexico on December 8. Dr. Miller addressed high school students in the afternoon and Dr. Neal spoke before students of the Missouri Military Academy. In the evening Dr. Miller and Dr. Neal presented addresses before a public meeting. "Appendicitis" was the subject of all the presentations.

MISCELLANY

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis for the Weekly Bulletin of the St. Louis Medical Society and are here reprinted that the members throughout the state may have the opportunity of reading them.

The Treatment of Early Syphilis

It is important to begin treatment in the seronegative primary stage since the prospect of a "cure" is one third greater than if delayed until the seropositive stage. There should be no "provocatives," no "therapeutic tests" and no waiting for secondaries to develop, and treatment should be pushed to prevent mucocutaneous relapse. The aim of treatment is radical cure.

The patient should be studied before treatment to determine the presence of complicating diseases, and especially to have a base line of physical findings to compare with subsequent examinations. A great many conflicting opinions in regard to treatment have been expressed by specialists in the past and many articles have been written to set forth their particular merits. The last decade, however, has seen a genuine cooperative effort to evaluate these various methods and to arrive at a fairly uniform course of procedure. The following precepts may be set forth as expressing the best judgment of outstanding specialists in the field of syphilology.

(1) Give not less than 20, and preferably 40 injections of the arsphenamines with the attendant heavy metal treatment; treat continuously without rest periods and with the patient constantly under the influence of either arsenic or heavy metal for at least one year after all symptoms and signs of the disease have disappeared; always use combined treatment, never one drug exclusively. The treatment of syphilis as well as its diagnosis is an art in which the physician must individualize the case, but the following dosage may be accepted as a general rule: Seronegative primary cases nine to fifteen injections of arsphenamine or neoarsphenamine; seropositive primary cases, twenty or more arsphenamine or neoarsphenamine; florid secondary cases nine to fifteen arsphenamine or neoarsphenamine; relapsers, ten or more additional; pregnant syphilitic women, ten to fifteen arsphenamine or neoarsphenamine. The Wassermann positive stage of primary syphilis presents more difficulties in treatment than any other stage of early syphilis. It requires at least ten more injections of an arsenical to effect a cure.

(2) Watch the progress and involution of visible lesions under treatment.

(3) Pay no attention to the serological tests except to distrust early reversals (within from eight to twelve weeks) within the first year of treatment, and to note weak positives which forewarn relapse. Continue treatment according to schedule. It may be disastrous to stop treatment under a year even with repeated negative tests. Rest intervals and abortive courses are the chief causes of serological fastness.

(4) Be warned of danger of relapse by persistent positive serological tests after six months of treatment, and by a weak positive appearing in the course of a series of negatives.

(5) Never use a blood test as a guide to infectiousness, and do not relax precautions even though it be negative. Infectiousness is determined by the nature

of the case (there are chronic relapsers) and by duration of time. The first five years, but especially the first two, after treatment stops are dangerous.

(6) A spinal fluid examination is desirable at the end of six months of treatment and essential before all treatment is stopped. It is also essential in interpreting any irreversible (fixed positive) blood test.

(7) Never dismiss a patient as cured for there are no criteria of cure; instruct him what to look for, and make frequent examinations of the blood, mucosae and skin during the first two years after treatment is stopped; make a second spinal fluid examination one year after the first was done.

(8) Make a yearly examination of the cardiovascular and nervous systems, because physical signs may be the only evidence of the presence of syphilis.

(9) Expect from 20 to 25 per cent of failures in fully developed infections.

OBITUARY

JOHN WALTER HARDY, JR., M.D.

Dr. John W. Hardy, Jr., Joplin, a graduate of Northwestern University Medical School, Chicago, 1929, died November 8, 1936, of injuries sustained in an automobile accident. He was 33 years old. Dr. and Mrs. Hardy were returning from attending a football game and a fraternity dance at Fayetteville, Arkansas, when the car overturned. Mrs. Hardy suffered serious injuries.

Dr. Hardy was born at Sumner, the son of Dr. John W. Hardy, Sr. He attended high school at Sumner and took his premedical work at the University of Missouri. After obtaining his medical degree he interned in the General Hospital, Kansas City, and was on the staff of the Homestake Hospital, Lead, South Dakota, for a year. He began his practice in Joplin in 1931, specializing in pediatrics and obstetrics.

Dr. Hardy was on the staffs of Freeman and St. John's hospitals. He was secretary of the Jasper County Medical Society at the time of his death. He was a member of Masonic Lodge No. 525 and of the First Presbyterian Church. He had won a place for himself, professionally and personally, in Joplin and his untimely death is grieved by his colleagues and many friends. The Jasper County Medical Society has lost an ardent worker.

Dr. Hardy is survived by his widow, Mrs. Marion Niles Hardy, two children, his parents and two sisters.

HUGH P. MUIR, M.D.

Dr. Hugh P. Muir, Columbia, died August 13, 1936, at Bell Memorial Hospital, Kansas City, Kansas. Dr. Muir had been in poor health for the last two years. He had undergone several operations without obtaining relief.

Dr. Muir entered the College of Arts and Science of the University of Missouri in 1915. He received his A.B. degree in 1919 and an M.A. in 1920. He entered the Medical Department of Harvard University, receiving his M.D. degree in 1922. He taught pathology at St. Louis University for a year and served as house physician at the University Hospitals, Columbia, for two years.

He practiced medicine in Columbia until the time of his death. During the last eighteen months he served as city physician and deputy health commissioner.

He was a member of the Presbyterian Church, Phi

Gamma Delta fraternity and an honorary member of Phi Beta Pi medical fraternity.

He is survived by his widow, Mrs. Margaret Reeves Muir, one son, Hugh Reeves Muir, his father and mother, Mr. and Mrs. Hugh D. Muir, and a brother, William Douglas Muir, Kansas City, Missouri.

Burial took place August 16 at Boonville.

His devotion to his family, his deep interest in his profession and his consideration for others endeared him to all who knew him.

DUDLEY S. CONLEY,
A. W. KAMPSCHMIDT,
Committee.

Books for Leisure Moments

Somewhat similar in nature and scope to "A Marriage Manual" is "The Single, The Engaged and The Married" (Eugenics Publishing Company, New York) by Dr. Maurice Chideckel. In this volume much attention is given to the physical manifestations of frustrated erotic desire and the remarkable improvement in those physical symptoms which follow a therapeutic régime designed to alleviate the emotional difficulty. The book could be much shorter without materially detracting from the information presented; rarely, a flippant form of expression detracts from the dignity which in general characterizes the presentation.

Exercising of one kind or another often constitutes a fetish in the popular mind. Exercises to build up or build down—to date I am not aware of any to build sidewise—are in much demand. Not a few advertisements in the popular magazines are devoted to this misconception of the American mental apparatus. Yet, there can be no question that properly selected gymnastics serve as a boon to vitality and increase the feeling of well-being that man seeks.

Barbro Leffler-Egnell has written a "new system of Swedish exercises for young and old" under the title "Slim and Supple" (D. Appleton-Century Co., New York). The system is not new, being merely a series of adaptations of exercises long in use; it is not Swedish unless the considerable accretion of Danish exercises which have found their way into the Swedish system may be considered to have lost their heritage; it is really not a system at all but a conglomeration of assorted muscle movements which the author hopes the layman will pick up and persist in until he has mastered all the exercises to the end that "any unsightly lump of fat may then be reduced."

Of themselves the exercises are not without value; the profusely illustrated volume should serve as an excellent source book for young and enthusiastic gymnastic teachers who seek to train their students for Olympic competition by the strenuous development of each muscle and set of muscles in the human body. Physicians may use the book in consultation with gymnasts to pick out such exercises as may properly be taught and be of benefit to individual patients. Under no circumstances is this book to be idly picked up by the layman and adapted to his own needs.

This volume is another unfortunate example of the craze that is sweeping the country, an unlearned desire in the breast of woman to achieve the silhouette figure, she knows not why. Proper reducing is extremely beneficial; haphazard methods not under the supervision of the physician, particularly those methods making use of drugs and too strenuous exercises, are not to be tolerated.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

ADAIR-KNOX-SCHUYLER-SULLIVAN COUNTY MEDICAL SOCIETY

The Adair-Knox-Schuyler-Sullivan County Medical Society was called to order at the office of Dr. Spencer Freeman, Kirksville, at 7:30 p. m., December 4, by Dr. Ida M. Nulton, Lancaster, president.

Dr. E. S. Smith, Kirksville, read a paper on "Dysentery." He prophesied that there would be a more severe type of this disease in Missouri in the future. Dr. J. J. Wimp and Dr. E. Val Davis, Kirksville, discussed the paper.

The following officers were elected: President, Dr. S. L. Freeman, Kirksville; vice president, Dr. F. E. Luman, Edina; secretary, Dr. J. S. Gashwiler, Novinger.

A motion made by Dr. Gashwiler and seconded by Dr. R. O. Stickler, Kirksville, that the society be called the North Central Counties Medical Society was passed.

Those present were Drs. H. M. Humphrey, Brashear; P. V. Hart, Coatsville; Ida M. Nulton and J. H. Keller, Lancaster; H. E. Gerwig, Downing; W. Herington, Green City; J. S. Gashwiler, Novinger; E. S. Smith, R. O. Stickler, J. J. Wimp, George E. Grim, E. Val Davis, A. B. Cramb, J. F. Dodson, S. L. Freeman and George F. Sneed, Kirksville.

J. S. GASHWILER, M.D., Secretary.

ATCHISON COUNTY MEDICAL SOCIETY

The Atchison County Medical Society met in Rockport on November 5. The following officers were elected for 1937: President, Dr. James A. Gray, Watson, and secretary, Dr. William R. Strickland, Rockport.

WILLIAM R. STRICKLAND, M.D., Secretary.

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society met at the St. Francis Hotel in St. Joseph on November 4 with fifty-nine present.

Immediately following a banquet the meeting was called to order by the president, Dr. J. M. Allaman. The regular order of business was suspended and the scientific program was presented.

Dr. D. K. Rose, St. Louis, spoke on "The Importance of Bladder Function in Dealing With Infection." The

essayist presented a most complete picture of development, physiology, pathology and treatment of infections of the bladder. The different types of bladder conditions, including all ages, were presented and a satisfactory method of handling of each was outlined. The subject matter, although mainly urologic, was general enough to be of interest to every one. The paper was discussed, Dr. Rose closing the discussion.

The evening was declared a happy success and appreciation of Dr. Rose was endorsed by a unanimous rising vote of thanks.

O. EARL WHITSELL, M.D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY

The Chariton County Medical Society held their last meeting of the year November 24 at Brunswick. The scientific program followed a turkey dinner in honor of the president, Dr. C. W. Bowen, Brunswick. There were twenty-three members and guests present.

Dr. Harry M. Gilkey, Kansas City, spoke on "Tuberculosis in Children."

Dr. Richard G. Helman, Kansas City, spoke on "Toxemias of Pregnancy."

A paper on "Epidemic Pleurodynia," prepared by Drs. F. L. Harms and G. W. Hawkins, Salisbury, was read by Dr. Hawkins.

Officers for 1937 were elected as follows: President, Dr. W. B. Lucas, Mendon; vice president, Dr. F. L. Harms, Salisbury; secretary-treasurer, Dr. G. W. Hawkins, Salisbury; delegate, Dr. J. W. Hardy, Sumner, and alternate, Dr. H. E. Tatum, Brunswick.

G. W. HAWKINS, M.D., Secretary.

DALLAS-HICKORY-POLK COUNTY MEDICAL SOCIETY

The Dallas-Hickory-Polk County Medical Society held its regular monthly meeting in Buffalo December 1 with the following members present: Drs. C. H. Brown, Fair Play; A. J. Stufflebam and C. R. Nevins, Humansville; J. F. Roberts, G. D. Smith and G. K. Sims, Bolivar; G. C. Plummer, Buffalo; J. W. Murray, Quincy, and J. L. Johnston, Springfield. The following guests were present: Drs. F. T. H'Doubler and E. E. Glenn, Springfield, and H. G. Savage, Warsaw.

Following the reading of the minutes a program was presented by Drs. H'Doubler, Glenn and Johnston.

Dr. H'Doubler gave an interesting and instructive dissertation on "The Diagnosis, the Differential Diagnosis and Treatment of Gallbladder Disease and Its Associated Biliary System." It was evident that he had gleaned his information from his experience in his individual work and that it was not merely an academic discussion. He emphasized that there had been entirely too much unnecessary removing of the gallbladder. In his reference to differential diagnosis of acute cholecystitis he urged the greatest care in ruling out peptic ulcer, appendicitis and coronary disease suggesting that in its treatment, on account of great severity in certain of the gallbladder cases, one should go slowly rather than operate immediately as is usually done in the case of acute appendicitis. Dr. H'Doubler said that the diagnosis of chronic cholecystitis is ordinarily easily made because of the outstanding symptoms of flatulence and gaseous eructations following eating, and it is usually associated with stones which frequently may be visualized through the use of dye and roentgen ray. He cautioned against too great eagerness in surgical removal because, under certain con-

ditions, one may have serious need of the organ in the future.

Dr. Glenn presented a paper entitled "The Heart Patient is a Surgical Risk" in which he carefully pointed out the necessity of a correct diagnosis. He discussed the subject from three main points of view. In the first place he showed why in these heart cases the anticipated surgery should be practical and protective to the patient. Next, he pointed out that the prognosis of the condition under consideration should warrant surgical procedure. Lastly, he spoke of the liability of the patient dying on account of being a poor surgical risk. The essayist left no doubt in the minds of his listeners that it is by no means infrequent that certain upper abdominal conditions may simulate closely a coronary disease and that one should be particularly alert in coronary thrombosis, acute rheumatic conditions and in auricular fibrillations. In referring to anesthetics he pointed out that of the general anesthetics ether is the one preferred for these heart patients, but, in all those cases in which it is at all practical, the local anesthetic should be used.

Dr. Johnston's paper on "True Bronchial Asthma" gave practical material for every day work among patients. He emphasized that entirely too much credence had been placed in the use of the pollen tests and that the administration of their extracts was probably being too closely adhered to in the treatment of allergic conditions. He showed that in his own work, as well as in that of other allergists, true bronchial asthma is a condition to be attended with far more consideration than is generally given to it. He pointed out that such diagnosis and treatment belong specifically in the field of the allergists but it is possible that the general practitioner may accomplish far more than he has previously done if he would but spend more of his time with this type of patient.

Each of these papers elicited discussion on the part of both the members and the essayists.

Adjournment was followed by a dinner at the City Cafe.

Dr. Robert P. C. Wilson, Marshall, will be the guest speaker at the meeting of January 5, 1937, at Fair Play. G. K. SIMS, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

Following a dinner at Reding's Mill Inn the Jasper County Medical Society was called to order on November 17 by the president, Dr. O. T. Blanke, Joplin, with thirty-one members and fifteen visitors present.

A report on the questionnaire sent to each member of the Society regarding the number of meetings was made by Dr. Blanke as follows: Twenty-one did not vote; of the thirty-seven returned seven voted for weekly meetings, eighteen for meetings twice a month and ten for meetings once a month; two did not express an opinion. The following committee was appointed to draft an amendment: Dr. J. L. Sims, Chairman; Dr. Paul W. Walker and Dr. M. H. Black.

A committee to draft resolutions on the death of Dr. J. W. Hardy, Jr., was appointed by the president as follows: Dr. B. E. DeTar, Chairman; Dr. A. M. Gregg and Dr. W. M. Kinney.

A card of thanks from Mrs. Chenoweth and Mary Chenoweth for flowers sent to Dr. L. C. Chenoweth was read.

A letter was read from the prosecuting attorney, C. R. Warden, regarding the case of J. R. Stark in which he stated that certain subpoenaed witnesses from Missouri would not testify and that the case now rested upon the testimony of one witness from Kansas.

A letter was read from Dr. H. L. Alexander regarding a postgraduate course in allergy to be held at Washington University from November 30 to December 12.

The applications for membership of Dr. Maxwell J. Harris and Dr. W. W. Hurst were returned approved by the board of censors and they were elected to membership.

Dr. Miller O. McNay, Carthage, was accepted to membership upon transfer from the St. Louis Medical Society.

Because of the untimely death of the secretary, Dr. J. W. Hardy, Jr., on November 8, 1936, and the short period remaining in the year, Dr. M. H. Black was appointed secretary pro tem to finish out the term.

Dr. Richard L. Sutton, Jr., Kansas City, was presented to the Society and gave a most entertaining talk on his trip from Norway into the Arctic Circle.

Meeting of November 24

The Society was called to order by the vice president, Dr. Paul W. Walker, at the Connor Hotel at 8 p. m.

Dr. W. M. Kinney, Joplin, chairman of the committee on radio broadcast, reported that Station WMBH had given a price of \$7.50 for a fifteen minute broadcast. The committee recommended that weekly programs be presented by the Society but that any material used be edited and supervised both before and during the broadcast. Dr. S. A. Grantham, Jr., suggested that only Society members be allowed to take part in the radio programs and that no names be mentioned. Others discussing the motion were Drs. R. M. James, J. W. Barson and W. M. Kinney. It was voted that the committee report be accepted and that the committee be empowered to proceed.

Dr. J. L. Sims, chairman of the committee on revision of by-laws, read the following proposed amendment to the by-laws which according to Chapter IX thereof will be read in open session at the regular meeting of the Society and voted on at the following regular session:

Chapter 11, Section 2. A meeting shall be held at 8 p. m. on each Tuesday in each month. Five members shall constitute a quorum.

The officers and committee on program shall profit by experience and by example of other similar societies, and strive to arrange for the most attractive and successful proceedings for each meeting. Crisp papers and discussions and reports of cases shall be arranged for and encouraged, and tedious and profitless proceedings and discussions shall be avoided as far as practicable.

The first paragraph to be changed to read as follows and the second paragraph remain the same:

Chapter 11, Section 2. A meeting shall be held at 8 p. m. on the second and fourth Tuesday of each month. Five members shall constitute a quorum.

Or to read as follows:

Chapter 11, Section 2. A meeting shall be held at 8 p. m. on the second Tuesday of each month. Five members shall constitute a quorum.

Dr. Sims explained that the committee included changes in meeting time in such form that at the following meeting it would be legal to vote on the meeting once a month or two meetings each month.

Case reports were presented by Drs. W. M. Kinney, R. M. James, R. L. Neff and J. W. Barson.

Mr. Robert Friedheim of Station WMBH appeared before the Society and answered questions relative to broadcasting. He stated that his station would place all of its facilities at the disposal of the Society and

that he would like to discuss details of the broadcast with the committee.

M. H. BLACK, M.D., Secretary pro tem.

RANDOLPH-MONROE COUNTY MEDICAL SOCIETY

The Randolph-Monroe County Medical Society met in the Public Library, Moberly, November 10. The meeting was called to order by the president, Dr. M. C. McMurry, Paris.

Dr. Martin Hunter, Moberly, was unanimously elected to membership.

The scientific program consisted of a talk on the subject "Feeble-mindedness in the State of Missouri" by Dr. Robert P. C. Wilson, superintendent of the Missouri State School, Marshall. This talk was informative and a general discussion followed.

Following the meeting a luncheon was served at Miller's Cafe.

The following guests and members were present: Dr. Robert P. C. Wilson and Mr. R. Chaudet, Marshall; Drs. M. C. McMurry, G. M. Ragsdale and J. F. Flynt, Paris; C. K. Dutton, O. K. Megee, C. C. Smith, L. O. Nickell, F. L. McCormick, L. E. Huber, T. S. Fleming, P. C. Davis, R. D. Streeter and M. E. Kaiser, Moberly.

M. E. KAISER, M.D., Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY

The Ste. Genevieve County Medical Society held its annual meeting December 9 with the president, Dr. G. M. Rutledge, Ste. Genevieve, in the chair. Attendance was very good.

Officers for 1937 were elected as follows: President, Dr. J. A. Wilkens, St. Marys; vice president, Dr. G. M. Rutledge, Ste. Genevieve; secretary-treasurer, Dr. Robert W. Lanning, Ste. Genevieve; delegate, Dr. Richard C. Lanning, Ste. Genevieve; board of censors, Drs. C. J. Clapsaddle, Richard C. Lanning and A. E. Sexauer, Ste. Genevieve.

The president appointed Drs. A. E. Sexauer, C. J. Clapsaddle and Richard C. Lanning, Ste. Genevieve, a committee on public health and legislation.

The treasurer's report for 1936 was read and approved.

No further business appearing the Society adjourned until the second Wednesday in January.

ROBERT W. LANNING, M.D., Secretary.

SALINE COUNTY MEDICAL SOCIETY

The Saline County Medical Society and Auxiliary held its annual banquet at the Ruff Hotel, Marshall, December 10.

Several guests were present including Dr. and Mrs. Thomas B. Hall, Kansas City; Dr. and Mrs. A. J. Campbell and Dr. and Mrs. A. L. Walter, Sedalia; Dr. and Mrs. A. D. Johnston, Corder; Dr. and Mrs. W. E. Martin, Odessa, and Mrs. John Hall, Sr., Marshall.

Following the dinner Dr. Thomas B. Hall, Kansas City, spoke on "The Practice of Medicine in Saline County One Hundred Years Ago." It was a splendid talk and proved Dr. Hall to be an able historian.

The president, Dr. J. R. Lawrence, Marshall, expressed regret at the absence from the meeting of Dr. H. R. Conway, Marshall, who is ill at Fitzgibbon Hospital with a cardiac affliction.

The following resolutions were passed:

Whereas, Dr. O. F. Bradford has been lecturing on pediatrics to the medical profession of Saline and Lafayette counties, and

Whereas, We have all learned and relearned very much in that department, be it

RESOLVED, That we unanimously endorse him to other medical men and request them to attend these lectures, and be it further

RESOLVED, That we publish these resolutions *THE JOURNAL*, and be it further

RESOLVED, That we express our sincere thanks for his untiring efforts to give us service.

Officers were elected as follows: President, Dr. R. W. Kennedy, Marshall; vice president, Dr. S. T. Mead, Slater; secretary-treasurer, Dr. E. A. Belden, Marshall; censor, Dr. R. C. Haynes, Marshall; delegate, Dr. L. S. James, Blackburn; alternate, Dr. S. P. Simmons, Marshall.

E. A. BELDEN, M.D., Secretary.

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met at the Horton Hotel at Willow Springs December 4 for dinner at noon with the following members present: Drs. A. H. Thornburgh, P. D. Gum and J. W. Bingham, West Plains; J. C. B. Davis, Willow Springs; R. A. Ryan and A. C. Ames, Mountain Grove, and J. A. Fuson, Mansfield. After dinner the meeting was called to order by the president, Dr. A. H. Thornburgh, West Plains.

Dr. P. D. Gum, West Plains, brought up the question of whether or not it would be better to divide the Society into two or more smaller societies as it was previous to three years ago. After discussion in which several took part, it was dropped without a vote being taken.

Dr. J. C. B. Davis, Willow Springs, presented the case of a man who had fallen from a scaffold and injured an ankle. Several roentgen rays were shown and the case proved interesting to all present.

Dr. A. H. Thornburgh, West Plains, reported the case of a child with paralysis. He was uncertain whether it was infantile paralysis or the result of a fall that occurred just before the symptoms appeared.

The annual election of officers resulted as follows: President, Dr. J. C. B. Davis, Willow Springs; vice president, Dr. R. A. Ryan, Mountain Grove; secretary-treasurer, Dr. A. C. Ames, Mountain Grove; censor for three years, Dr. R. M. Norman, Ava; censors holding over, Drs. P. D. Gum, West Plains, and J. A. Fuson, Mansfield; delegates: Howell County, Dr. A. H. Thornburgh, West Plains, alternate, Dr. P. D. Gum, West Plains; Oregon County, Dr. F. A. Barnes, Thayer, alternate, Dr. C. W. Cooper, Thayer; Texas County, Dr. Leslie Randall, Licking, alternate, Dr. L. M. Dillman, Houston; Wright County, Dr. R. A. Ryan, Mountain Grove, alternate, Dr. J. A. Fuson, Mansfield; Douglas County, Dr. R. M. Norman, Ava, alternate, Dr. M. C. Gentry, Ava.

It was voted to hold the next meeting at Willow Springs on February 5 and to ask the Secretary to send two speakers to discuss the subjects of "Diphtheria" and "Infantile Paralysis."

A. C. AMES, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

15th Annual Meeting, Atlantic City, 1937

President, Mrs. Robert Fitzgerald, Wauwatosa, Wisconsin.

President-Elect, Mrs. Augustus Kech, Altoona, Pennsylvania.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

13th Annual Meeting, Cape Girardeau, 1937

President, Mrs. Walter Kirchner, St. Louis.

President-Elect, Mrs. Charles Werner, St. Joseph.

PRESIDENT'S LETTER

Dear Auxiliary Members:

On October 26, the president, Mrs. W. C. G. Kirchner, St. Louis, and the corresponding secretary, Mrs. Frank L. Davis, St. Louis, left for a tour of Missouri which would cover nearly one thousand miles and include visits to eight auxiliaries, our adviser and one of our members-at-large.

The spirit of adventure was upon us as we left St. Louis on that misty, cold Monday morning. We were starting out on a complete circle tour of our state, something that had not been done before by our state officers, and we could not help but wonder what the results would be, what gain, if any, would accrue to ourselves and to the state organization.

The first destination was the home of Mrs. W. L. Allee, Eldon, where we met the members of the Miller County Auxiliary. A group of eight sat down to Mrs. Allee's beautifully appointed luncheon table and after a delicious luncheon discussed the affairs of the Miller County Auxiliary. At first discouraged about their attempting any of the Auxiliary projects this year because their ranks had been depleted by illness, at the conclusion of our talk it seemed assured that our entire state program would be nicely handled and their president, Mrs. E. C. Shelton, Eldon, expressed herself as feeling that her group had been reorganized. When we took our departure late in the afternoon for Bagnell Dam and the delightful Holiday House, where we were to spend the night, it was with a feeling that our first meeting had proved the value of our tour.

Tuesday morning we journeyed on along the shores of the beautiful Lake of the Ozarks, its wooded banks aflame in autumn glory, to our next destination, Springfield. Toward noon we arrived at the home of our State Auditor, Mrs. Paul Cole, Springfield, who had invited us to be her guests. There followed a beautiful luncheon and meeting at the home of one of the members with almost the entire membership of forty in attendance. The President, Mrs. Arthur D. Knabb, Springfield, presided over a brief business session, after which the two visiting state officers addressed the meeting and in conclusion a delightful program of violin solos was rendered by one of the members. Following the meeting we were taken for a drive around town and entertained with a beautiful dinner by our hostess in her home.

Our third stop was Joplin, which we reached about 11 o'clock Wednesday morning. Through the courtesy of Mrs. R. M. James and Mrs. C. T. Reid, a meeting

and luncheon were arranged for us at the Woman's Club. Unfortunately, their president and secretary could not be present being engaged in other organizations, but their vice president, Mrs. B. A. Dumbauld, had come from Webb City to be with us. Before going in to meet the group of eight members that had gathered, it was hinted to me that I might be disappointed and discouraged because of their lack of activity. However, I refused to be discouraged, feeling that behind this lack of activity must be some cause, which we perhaps might influence. And so for an hour or more we talked about the Woman's Auxiliary, its aims and purposes and its importance to all doctors' wives, its value to the medical profession. Gradually a disinterested look was changed to one of inquiry and interest and they asked, "What could they do to further the cause of the medical profession?" So we told them about our state projects, the means at our disposal for realizing the purposes of our organization which we consider so important. Various ones were encouraged to take charge of these projects for their county. After a delicious luncheon we left for the northward trek with regrets at leaving this congenial group, but with high expectations of their future accomplishments.

About 4 o'clock Wednesday afternoon we arrived in Nevada, our fourth stop, at the home of Mrs. Wm. L. Davis, president of the Vernon-Cedar County Auxiliary and our state Chairman of Legislation. Eleven members had gathered for the meeting at the home of Mrs. Davis, and the interest and enthusiasm shown by this group for all of our Auxiliary projects brought joy to our hearts. Their response to their president was so quick and so wholehearted and her interest so keen to lead them on, they might well serve as an example for the rest of us to follow. Our faith in the value of our organization was bolstered by this little group, for which they have earned our gratitude. After the meeting three more members joined the group at an excellent dinner at Brown's Cafe, following which we were taken for a drive around the town, saw the beautiful public park and the enormous state sanatorium. Returning to the home of Dr. and Mrs. Davis, we spent a delightful evening examining their interesting collection of beautiful Navajo rugs, Indian baskets and silver which they had collected when Dr. Davis was in the Public Health service in New Mexico.

Thursday morning a hearty breakfast with the Davises fortified us against the drive of 150 miles from Nevada to St. Joseph. Route 71 passed directly through Harrisonville, the home of two of our past state presidents, Mrs. M. P. Overholser and Mrs. David S. Long, also our national first vice president, so we could not resist the opportunity to stop for a very brief call. We were happy to find Mrs. Overholser looking very well and to learn that Dr. Overholser had recovered from his recent illness and was again able to go to his office. We were sorry not to find Mrs. Long at home and sad to learn that she had just the previous week lost her mother. The Cass County Auxiliary had invited me to visit them at the time of their opening meeting in September, but unfortunately I could not leave home at that time.

Toward noon we arrived at our destination in St. Joseph, the home of our hostess, Mrs. Wm. H. Minton, president of the Buchanan County Auxiliary. There followed a delightful luncheon and meeting with the Buchanan County Auxiliary in the private dining room of the Oakford Tea-Room. About forty members of this loyal and energetic group were in attendance, including our former state and national President, Mrs. A. B. McGlothlan, and our own President-Elect, Mrs. Charles H. Werner. When Mrs. McGlothlan an-

nounced that she had secured donations amounting to \$68 for *Hygeia* subscriptions, we felt assured that as always Buchanan County would take the lead in this project. Miss Murial Lomax gave a talk on "Physical Education," following which the visiting state officers addressed the meeting and in conclusion the group voted to purchase and study the book recommended by the state president as their own health education program for the year. A delightful drive and a beautiful dinner for a small group in Mrs. Minton's home concluded a most interesting day.

Friday morning we left St. Joseph for the eastward, homeward trek. We were to make four stops on this part of our tour and the first of these was at Chillicothe, where we arrived at 11 o'clock, just in time to witness the homecoming parade of the Chillicothe Business College. We were impressed with the wide extent of the territory from which this college draws its students and Mrs. Davis, always on the alert for advertisements for our new state year-book, made note of a likely prospect. After a drive around town with the president of the Livingston-Caldwell Auxiliary, Mrs. H. S. Dowell, we returned to the attractive new Strand Hotel for a luncheon meeting with this Auxiliary of thirteen members, all of whom were present. We addressed the meeting at the close of the luncheon and the response of this group to their energetic president seemed to assure the success of the state projects in these counties.

Our next stop was Brookfield, where we arrived in late afternoon at the home of our hostess, the president of the Linn County Auxiliary, Mrs. S. T. Brownfield. This group had arranged a joint dinner with the Medical Society at the Country Club, where a long table seating about fifty was set in view of the blazing log fire. We were privileged to address this joint group, after which separate meetings were held, the ladies returning for their meeting at the home of their president. The presence in this group of our state Chairman of Program, Mrs. Ola Putman, and others of ability and interest assured us of the active interest and cooperation of this county in our state projects.

Saturday morning our route led us through Mexico, the home of our former adviser, Dr. J. F. Harrison, and of one of our members-at-large, Mrs. Paul E. Coil, on both of whom we paid short calls. Mrs. Coil has long been interested in the Auxiliary and though lacking an organized county to back her, she offered to put on the Essay Contest herself in Audrain County. Needless to say her offer was most gratefully accepted.

Finally, Saturday noon, we reached our last destination, Fulton, where a luncheon meeting with the Callaway County Auxiliary had been arranged at the Seminole Hotel by their president, Mrs. J. B. McCubbin, and our State Director, Mrs. T. S. Lapp. Here again we were delighted to find an active, interested group ready to cooperate in all of our state projects.

As we journeyed homeward late that afternoon, covering the last hundred miles, we had time to consider our tour in all its aspects. For ourselves we realized an increased knowledge of our membership, our organized groups and of conditions in different parts of our state, to say nothing of the cordial reception accorded us in every place and the very delightful experience it had proved to be.

In preparation for the new state year-book, which she hopes to produce this year, Mrs. Davis had checked the membership lists at every stop and made note of suggested possible advertisers. For the state organization also we hope there will be decided gains, as the result of our tour, in the increased activities of different groups and in a better understanding of our aims, our

purposes and our opportunities for service as an Auxiliary to the Missouri Medical Association. And from the conditions that we found confronting the medical profession all over our State, we would say that there was more than ever need of a Woman's Auxiliary.

MRS. WALTER KIRCHNER, President.

CORRESPONDENCE

VOCABULARY OF PHYSICIANS AND APTITUDE TESTS

The following letter is reprinted from the *Journal of the American Medical Association* of October 3, 1936.

To the Editor:—Flack, discussing "Aptitude Tests for Medical Students" (*THE JOURNAL*, July 4, p. 61), mentions various factors that have turned the attention of the officers of medical schools toward the possibilities of aptitude tests in solving their problems. The tests employed include a scientific vocabulary test. Yoakum (reported by Twitchell, D. F.: Report of Data Pertinent to the Problem of Selection of Medical Students, *J. A. Am. M. Coll.* 6:357-361 [Nov.] 1931) has experimented with an exclusively vocabulary and reading test in an endeavor to predict the success of students in later medical studies. After describing the

Terms Encountered in Garrison's History of Medicine

adumbrated	theurgy	eidetics
heuristic	lathyrism	crannogs
ephors	palimpsest	orotund
prolegomena	synectic	snaffle
iconography	proegumenic	geriatrics
ethnic	procatartie	pithiatism
couvade	synochal	camptocormy
runic	farriery	corroval
bilbo	patristic	vao
totemic	emir	latah
apotropaic	mage	myriachit
omophagy	adscripts	megrims
chthonian	farago	semantic
hieratic	marano	autochthons
vulnerable	redecraft	achorion
obsidian	hodegetics	porrigo
piebald	creese	hydroa
piacular	fictive	whiffing
syncretic	prebandary	telegony
basilisk	filigranes	heterosis
dicoric	deontology	bionomic
grigris	carricks	euthenics
scopelism	energumen	phenotype
phylacteries	osier	demiurge
periapts	tritych	espalier
mantra	mascaron	trephones
estray	electuary	cyclopia
runes	reiver	nimbus
gamy	flagitious	metaxenia
demotic	pelisse	culicidal
stela	paracutic	atrepsy
withes	bezoar	ecology
antinomies	ordure	syzygiology
sinology	cozenage	moxa
steatopygous	apozeme	recusant
faience	centupled	plinth
sherd	avator	charades
aniconic	vectis	pythogenic
uranic	choreographic	pythones
polonaise	zany	gambit
esoteric	mephitic	gerundive
hilastic	panada	diorama
laic	burin	thuggee
metempsychosis		dacoity

results obtained thus far in a number of medical schools, Flack concludes that "the aptitude tests have gone a long way toward solving the problem of selecting applicants to medical schools." Wechsler states that, contrary to what one would expect, the vocabulary test "is one of the best tests of intelligence; in fact, it cor-

relates more highly with mental age than any other single test on the Binet-Simon scale. . . . In scoring the responses, elegance of definition is disregarded; any correct meaning is acceptable" (*A Textbook of Clinical Neurology*, ed. 3, 1935).

If vocabulary is to be a measure of intelligence for future physicians, Garrison pays a graceful compliment to the medical man of this generation in his celebrated *History of Medicine*. In this great work one encounters all the words listed in the accompanying tabulation, in the order in which they are given here. Will not every physician on meeting these familiar terms in his leisure reading feel a glow of self assurance and gain confidence that, had aptitude tests been applied in his student days, he would have scaled over them with the greatest of ease?

JOSEPH NASH, M.D., New York.

BOOK REVIEWS

HISTOLOGICAL TECHNIC. A practical handbook for the workers in Histology or Histopathology laboratories, which describes in compact form, improved methods for the preparation of microscopical sections. By Aram A. Krajian, Department of Pathology, Los Angeles County General Hospital, Los Angeles, California. 1936.

The writer of this manual is eminently fitted for the task which he has attempted. He is a highly proficient and well trained pathological histological technician. His career with Professor W. G. MacCallum, of Johns Hopkins University, in the Department of Pathology in the Presbyterian Hospital of Columbia University, together with his long experience under Professor Newton Evans, Director of the Department of Pathology of the Los Angeles County General Hospital, eminently fits him for the undertaking. In addition to his routine work, Mr. Krajian has developed a number of additional methods which are strikingly useful in histological technic.

The present book is a worthy successor to the former classic of Mallory and Wright. In this book of 217 pages one will find complete details of the modern methods of fixation, decalcification, sectioning, and staining histological specimens.

The fullest details are given of the manner of action of all the solutions. This includes not only routine methods but also special technics. In Part VIII, for instance, we find the collagen fibrils and reticulum of connective tissue, azocarmine stain, Krajian's modification of Van Gieson stain, Perdrau-Bielschowsky method for reticulum, Krajian's rapid method for the demonstration of reticulum and collagen fibers, and Foot method of staining reticulum. Under elastic fiber stains, we find Weigert's elastic fiber stain, Krajian's method of staining elastic fibers, and MacCallum's modification of Verhoeff's elastic stain. Under fibrin stains, we find Weigert's fibrin stain, Krajian's stain for fibrin, and Mallory's iron chloride for fibrin. Under amyloid stains, we find Krajian amyloid stain, iodine and sulphuric acid reaction, and reaction with methyl violet. Under hyaline stains, we find Kuhne's modified technic, Russell's carbolfuchsin method, and Weigert's fibrin stain. Under glycogen stains, we find Langhan's iodine stain and Best's carmine stain. Under mucin stains, we find Hoyer's thionin stain, Mayer's mucicarmine stain, and pseudo mucin. Under fat and lipid stains, we find Scharlach R stain, osmic acid stain for fat, osmic acid method for frozen sections,

nile blue sulfate stain for fat, and Ciaccio's stain for lipoids. Under myelin or medullary sheath stains, we find Weigert-Pal method, Spielmeyer's method, Courville-Krajian method, Krajian myelin sheath stain, Pal-Kulschitzky's method, and Morgan's method for paraffin sections.

An excellent description is given of the xanthhydrol method for urea. The reviewer has had occasion to try out Krajian's xanthhydrol method and has found it particularly useful in the diagnosis of uremic conditions at autopsy.

Another method with which we are intimately acquainted is Krajian's method of demonstrating spirochete in tissue. In addition to these special methods, he has given all the details of fungus, pigment, chromatin, chromaffin, pancreatic islet cell stains, plasma cell stain, mitotic figure stain, oxidase granule stain, and methods of examination of bone marrow.

In Part IX, a complete detailed account is given of the histopathological methods of the central nervous system. We are safe in stating that the methods, directions and details given in this book cannot be found in any other one book. Therefore, this book should be at hand in every laboratory as well as in the laboratories for the instruction of laboratory technicians.

Mr. Krajian has done a great service to the laboratory world and for this he deserves credit and thanks.

R. B. H. G.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, nursing, veterinary science, biology, medical biography, etc., with the pronunciation, derivation, and definition. By W. A. Newman Dorland, A.M., M.D., F.A.C.S. Seventeenth edition, revised and enlarged with 945 illustrations, including 283 portraits. With the collaboration of E. C. L. Miller, M.D. Philadelphia and London: W. B. Saunders. Company. 1935.

The 17th edition of the "American Illustrated Medical Dictionary," Dorland's, is an up-to-date lexicon sufficiently full for the varied requirements of all classes of medical men including students. While the publishers, no doubt, do not claim the book to be an encyclopedia it in the mind of this reviewer presents many features of an encyclopedic nature.

Medical terminology is growing with such rapidity as the scientists discover new knowledge in numerous avenues of a strictly medical nature and related sciences that each new edition is necessarily larger in number of pages needed to cover the field. The present edition of Dorland's dictionary represents three years' work on the part of a large corps of collaborators.

The numerous illustrations in this book add immensely to its value. A unique feature is the large number of portraits of pioneers in every field of medicine; noted scientists, practitioners and investigators whose names have become part and parcel of medical language. A feature that we believe will be a welcome item for all physicians who want to know the phrasing of the Hippocratic Oath is the inclusion of the Oath. The reviewer has never been able to memorize the Oath but has on numerous occasions found use for it but when he looked in current works he had great difficulty in finding it.

Authors of medical articles written with the intention of submitting the manuscripts to medical publications will find Dorland's Dictionary very helpful. The American Medical Association has adopted this medical dictionary as its standard and it is also the standard of a number of the state medical association journals.

E. J. G.

A TEXTBOOK OF NEURO-ANATOMY. By Albert Kuntz, Ph.D., M.D., Professor of Micro-Anatomy in St. Louis University School of Medicine. Second edition, thoroughly revised. Illustrated with 307 engravings. Philadelphia: Lea & Febiger. 1936. Price \$6.00.

This textbook, as indicated in the preface, is designed for the medical student. However, the general practitioner will find it a good reference work on this most difficult of all the anatomical problems of the entire body, such as might truthfully be said of the central nervous system. It is essentially a book on neuro-anatomy, but occasionally physiological facts and references are found. For histological data Cajal is referred to quite frequently even though his name in the several references is not printed quite correctly. Ontogeny and phylogeny are not neglected. In discussing glial tissues, astrocytes and oligodendroglia are referred to as having ectodermic origin and microglia as mesodermic. There has been some diversity of opinion in past years relative to the classification of these glial cells. The functions of these tissues are also discussed.

A common division of the brain is followed in this textbook, namely, myelencephalon, metencephalon, mesencephalon, diencephalon, and telencephalon. Myelination of the different pathways are treated splendidly, and the several important conduction pathways are described. The last few chapters of the book are devoted to the brain and especially the cortex and functional localizations. This includes both gross and microscopical anatomy.

Black and white illustrations are used freely. There are no colored plates. Curiously for this type of book, the last fifteen pages are devoted to clinical illustrations.

At the end of each chapter is given an appropriate bibliography, not complete but well selected. Admitting the difficulties of acquiring an intimate knowledge of the structure of the central nervous system, this book should be found about as easy reading for the general practitioner or medical student as any that have been placed on the market in recent years. The work can be highly recommended. A. L. S.

MICROBIOLOGY AND PATHOLOGY FOR NURSES. By Charles F. Carter, B.S., M.D., Director, Carter's Clinical Laboratory, Dallas, Texas, etc. With 138 text illustrations and 14 color plates. St. Louis: The C. V. Mosby Company. 1936. Price \$3.00.

An exceedingly practical, well arranged, simply written textbook. The needs of the nurse have been kept uppermost throughout the entire book and there is no attempt to include material that should be contained only in a book for physicians. A number of excellent colored plates are a pleasing feature of the volume. B. Y. G.

BASAL METABOLISM IN HEALTH AND DISEASE. By Eugene F. Du Bois, M.D., Medical Director, Russell Sage Institute of Pathology; Professor of Medicine, Cornell University Medical College, New York; Physician in Chief to the New York Hospital. Third edition, thoroughly revised. Illustrated with 98 engravings. Philadelphia: Lea & Febiger. 1936. Price \$5.00.

A large and very important field of medicine is intimately woven about the subject of metabolism, the physiochemical processes of the body and the food that is put into it. In many respects it differs from other fields of medicine for it is largely the development of a very few men and their students. This unique his-

tory adds to the fascination which must inevitably grow upon its students. The genius of Lavoissier made practical application of the discoveries of Priestley and Cavendish in relation to gases; Lavoissier's work, interrupted by the guillotine, was taken up by Regnault and Reiset who in turn passed on the torch to Liebig and Pettenkofer and Voit. Under the influence of the latter its many students gave the new subject of metabolism wide clinical application. For years it was Graham Lusk who in a frequently revised volume presented to the medical profession the results of these intricate investigations, particularly as they applied to the problems of the practicing physician.

A few years before Lusk's death in 1933 the first edition of this book by his student appeared. Part I is devoted to the consideration of the underlying laws of physiology which govern the whole complicated subject of metabolism. Part II interprets, makes plain, the application of these facts to the diagnosis and treatment of disease. Du Bois possesses an easy style which makes more interesting the sometimes dry material of which he treats. This volume is sure to find a wide field of usefulness and it is to be hoped that succeeding years will see revisions of the work as frequently as necessary to encompass the myriad advances now being made in the subject. B. Y. G.

PEDIATRIC NURSING. By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine; and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics, Assisted by Beryl E. Hamilton, R.N., Graduate of St. Luke's Hospital, St. Louis. With 144 illustrations in the text and seven color plates. St. Louis The C. V. Mosby Company. 1936. Price \$3.00.

This is a well printed book of convenient size, the first half containing definitions and short descriptions of diseases found in childhood. The second half is strictly concerned with the practice of nursing as it relates to pediatrics. Nursing materials, feeding utensils, hospital methods are well described. Pediatric nursing in the home and orthopedic nursing both receive attention. At the end of each chapter is a list of questions dealing with the subjects considered. A nurse who familiarizes herself with all contained in this book should be well informed upon the subject and training schools will do well to have this volume in their libraries. F. C. N.

THE EYE AND ITS DISEASES. By 82 International Authorities. Edited by Conrad Berens, M.D., Ophthalmic Surgeon, Pathologist and Director of Research, New York Eye and Ear Infirmary, etc. With 436 illustrations, some in color. Philadelphia and London: W. B. Saunders Company. 1936. Price \$12.00.

While this work has just been published, it is in reality about three years old, yet it contains most of the late advances in ophthalmology. Certain chapters, such as the section on operations on the retina, are not up to date due to the rapidly changing technic in this type of surgery. The chapter dealing with compensation injuries is of special interest to all ophthalmologists who do industrial work. The illustrations are unusually good.

Due to the comprehensiveness of the volume a detailed review cannot be given in a limited space. However, it is the most modern text on ophthalmology and is unhesitatingly recommended for the library of all physicians doing this type of work. J. W. M.

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THE IMPORTANCE OF BLADDER FUNCTION IN DEALING WITH INFECTION

D. K. ROSE, M.D.

ST. LOUIS

Dealing with urinary bladder infection assumes new importance as we understand bladder function. I should like to give a résumé of the difficulties of prostatic and bladder surgery to show that, by casting out beliefs which accounted for our difficulties in past days, we can now reestablish some of the older methods of bladder surgery modifying them only sufficiently to meet our present day understanding of bladder function.

Progress in surgery, speaking specifically of urinary surgery, cannot be waylaid long by false promise or hope before we as surgeons are confronted with mortality rates and surgical results. Depending on these eventually we push along the old road, loiter for new direction or turn abruptly for new and shorter routes. A glance back over the path we have traveled in prostate and bladder surgery enables us to realize how we have pushed on, loitered or turned ever in search of lower mortality rates and better results and it is evident at each milepost great benefits have accrued not, however, without some losses which with their slow recognition are difficult to correct.

Let me briefly review the course of prostatic surgery since the middle of the fifteenth century when Nicolo Ulassa of Venice discovered the prostate as the obstructive factor prior to which discovery bladder obstruction was considered due to outgrowths of the bladder neck. The first attempt at prostatic surgery was to tunnel through with great mortality and poor results. John Hunter and Billroth attempted this. In the middle of the eighteenth century, with suprapubic rather than perineal removal

of stones as previously practiced, pieces of prostate were removed again with high mortality and poor results. Mercier, Sir Henry Thompson and Sir William Ferguson developed this stage of progress in part. Again there was a swing back, to some extent at least, to transurethral or tunneling methods. At this time Guthrie and Mercier developed instruments to cut the bladder neck and L. d'Etoilles snared some prostate out through a perineal incision. The mortality rate was high and results poor.

Next came injection of iodine into the prostate to cause suppuration and shrinkage, but suppuration won.

The period of aseptic surgery or the surgical era then began and brought in suprapubic surgery as we know it. Drainage being a cardinal principle of Listerism, stones continued to be extracted by the perineal route, as it was thought that the drainage by this method was better than by the suprapubic route. The first effort to control infection was a three stage suprapubic operation but all of the prostate was not removed. Von Dittle removed the middle lobe first and Belfield in 1887 followed von Dittle in suprapubic prostatectomy and removed the entire lobe.

Perineal prostatectomy preceded the suprapubic route throughout, at first due to the established perineal route for stone and, second, after Lister it was thought more dependent and so offering better drainage. It is reported during the time from Billroth in 1867 to Young in 1898. An argument then arose between the advocates of the perineal and suprapubic methods. In the middle of this period (1873) transurethral and the galvanic cautery method of Bottini were reported. Three schools were now trying to lower mortality rate and improve results.

It is necessary to omit important names and contributions of this period which lead to the present time. We still have suprapubic, perineal and transurethral methods and are still working with the three routes of removal and

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Read before the Buchanan County Medical Society, St. Joseph, Mo., November 4, 1936.

control of infection. Infection brings me to our subject this evening. Directly or indirectly through hemorrhage infection has been chiefly responsible for the ever changing routes prostatic and bladder surgery have traveled for without the bladder influence in any of the three types of surgery our results would be entirely different and more satisfactory.

In 1895 Fuller, Guitierrez and Freyer developed our total suprapubic prostatectomy. Young noted the great advantages (1899) of preliminary drainage and practiced perineal chiefly. Rowntree and Geraghty in 1911 brought out the phenolsulphonephthalein test which demonstrated still better the value of indwelling catheter preliminary to prostatectomy. E. L. Keyes sounded warnings against the catheter in some instances citing that in 50 per cent or so of cases its was insufficient drainage and that there was less bleeding after suprapubic drainage. Then the picture became complicated in 1920 by Von Zwallenburg's principles of gradual decompression of the bladder. By correlating Young's, Rowntree and Geraghty's and Von Zwallenburg's work it became an established practice to place an indwelling catheter and then do a two-stage suprapubic or perineal prostatectomy. All went fairly well, at least better than at any previous period, until in this country, following modifications of Thomson-Walker's operation of a one-stage, suprapubic complete removal after employing the retention urethral catheter replaced in a goodly number of cases the two-stage suprapubic operation. Walker and his associates did not use the retention catheter as we did. The suprapubic mortality rate went up though results remained stationary and so we turned again to transurethral surgery just as it had been done in the past.

The increased mortality rate in suprapubic operations, due to sepsis and hemorrhage, followed operating within a urethra and bladder which were badly infected secondary to the foreign body, i. e., the indwelling catheter. The perineal operation at this period obviously did not increase the mortality rate as they operated from without and not from within the prostatic urethra.

The effect of this combination, indwelling catheter and immediate one-stage suprapubic operation, was softened by the continuation of a certain percentage of two-stage suprapubic removals, the period between cystostomy and removal allowing some healing of the acute catheter cystitis and urethritis although Gilbert Thomas, Exley and O'Brien³ showed that even in two-stage removal the previous use of a catheter, even for a short time, raised the mortality rate.

To overcome this it was first necessary to change our ideas regarding so-called gradual decompression. If single sudden release with continued perfect drainage afterwards does cause kidney damage, it is extremely rare. Cystostomy with one complete emptying with subsequent perfect drainage I believe to be harmless; but repeated intermittent catheterization does cause kidney damage and oftentimes a retention catheter amounts to intermittent drainage because it frequently stops up with blood clots, etc., thus incidentally furnishing imperfect drainage.

The bladder affects the kidney directly through the medium of back pressure, in some cases more than in others, in my opinion due to the particular relationship of bladder wall and ureter, the angle of ureteral implantation, direct regurgitation, patency of the ureteral orifices, the degree of increased bladder wall thickness (smooth muscle compensation) which occurred to overcome the prostatic obstruction, and descent of the bladder floor causing vas deferens pressure on the ureter. We often see two cases similar in degree and duration of prostatic obstruction, yet one is uremic and one has normal kidney function. Whether the emptying is by catheter or voiding, the effect the particular bladder has is noted, considering infection and residual urine accessory factors. The damage is done more quickly with the catheter when the particular bladder function is favorable to secondary kidney damage. It affects the kidney secondarily through sepsis and if the back pressure damage has already occurred, then less direct infection or toxic change is necessary to cause kidney death.

If we apply our surgical principles of drainage to infection instead of to urine back pressure in an obstructed bladder, there will be less fear of immediate cystostomy and an improved mortality rate. Another most important factor in this consideration is that for a long period we considered the bladder as "old leather," that is, an excretory organ of little absorptive importance. It is true that when not traumatized and infected it has no true endothelial lined lymph spaces in its mucosa and submucosa but when infected lymph spaces soon appear which pick up infection and, as MacKenzie's and Wallace's² work suggests, send it rapidly to the blood stream by way of the iliac lymph glands draining into the thoracic duct which empties into the left subclavian vein, a very direct route to the blood stream, and so diffuse an infection with primary or secondary kidney damage.

There now remains one other factor, bladder wall physiology, to be considered before we can place suprapubic, one stage or two stage prostatectomy back in a place of honor with a mor-

tality rate lower than it had before the confusion of factors, as set forth here, raised this rate and caused us to look around for new direction and we accepted transurethral even as our predecessors did in Bottini's time.

The bladder, an organ of retention and expulsion, retains a wall sufficiently yielding to accommodate urine passively and expel it easily, until obstructed. If this obstruction is gradual the bladder wall will accommodate itself to the raised resistance by hypertrophy. Such a thickening of its wall will decrease the elasticity and so its capacity thus more quickly allowing overdistention trauma. Its expulsive force will be increased. This relative fixation of the bladder wall is an important consideration in absorption of infection in the infected, traumatized and obstructed bladder. In addition, nonneurogenic bladders are contracted, thickened and fixed by catheterization, either retention or intermittent type. The catheter, therefore, stands doubly indicted; first, by inciting infection as a foreign body and, now, by raising the intracystic pressure and increasing absorption whenever the drainage becomes imperfect. With all these indictments there are instances of malnutrition with sepsis and damaged kidney function in which retention catheter should be resorted to in preference to cystostomy but if tried it must be well borne and drain perfectly or the cystostomy, even in such instances, is preferable.

The importance of the bladder from the standpoints of physiological and bacteriological management in kidney infection is interesting. In an obstructed bladder, in the early days and before a residual urine has developed, frequency and urgency of urination are produced by the thickened or hypertrophic, that is compensated, bladder wall. Such a bladder is unable to relax passively to the same degree as one that is not unduly strong. Consequently, when the primary stimulation to void occurs the muscle remains in some degree of contraction until the patient responds by emptying it. This accounts for statements of the patient with early prostatic involvement who tells us that he gets up two or three times to void not because he wants to urinate badly but because he awakens, feels slightly uncomfortable, the desire to void lessens, but again he dozes a time when the desire to void returns and he gets up only to void a small amount of urine. The chief function of the cerebrum is to inhibit bladder contraction which, as in the patient mentioned, it does after the patient has been awakened. He then dozes only to be awakened by a recurring contraction when sleep again lessens the inhibition of his strong bladder wall. Eventually, in months or years, the constantly raised intracystic pressure will partially deaden sensation (a type of pressure

anesthesia or physiological adaptation), and a residual urine will develop. This now furnishes the stasis factor for infection which, if and when the cystitis occurs, may "whip up" the bladder to rid itself of the residual urine for a short time.

Bladders have their inherent characteristics; i. e., they may vary within normal limits, be tonic or atonic; I believe, in many instances, associated with a type of cerebration. A child, for example, who is normally intelligent may void large amounts three or four times in the twenty-four hours. A cystitis may occur due to the relative bladder stagnation. We would speak of this individual as a sympathetic overbalance type. The opposite, or parasympathetic overbalance type, would be one who voids too frequently, day and night, and who is often an enuretic and may even during the day suffer incontinence of urgency. In my opinion surgery of the nervous system in an effort to correct either extreme is not based on secure physiological grounds. Rather, I suggest management to fit the particular bladder function; in the one, frequent emptying or voiding to decrease capacity and so contract the wall and raise the intracystic pressure and, in the other, hydraulic distention of the bladder to give increased capacity although often not a correspondingly lowered intracystic pressure.

In pyelitis of infancy, as in all pyelitis, bladder irrigation may assist the kidney infection by reducing the degree of cystitis through which medium the kidneys may be reinfected. Bladder physiology is most important in such cases as before 4 years of age the urinary bladder is pear shaped and extends above the symphysis and direct ureteral regurgitation is much more frequent than in adults. Later, after 4 years, the bladder is descended, its floor is rotated forward increasing the valve effect of the ureters in their obliquity through the bladder wall, thus tending to protect the upper urinary tract from regurgitation. Bladder irrigation, therefore, in infants much more frequently than in adults may cause regurgitation and, by this directly transmitted pressure and infected though diluted urine, may damage the ureters and pelvis. I have seen the practice prove fatal.

The function of the bladder is to empty itself and it will continuously attempt to do so. Therefore it will contract more and more, when malignancies, stones or foreign bodies are present and eventually the impetus of the irrigation of a secondary infection will be added. The postoperative management in such bladders is quite similar to that of a compensated bladder back of an obstruction which has been operated on. Both need equally free and uninterrupted drainage, often imperfectly fur-

nished by urethral or suprapubic catheter but better furnished by full and free suprapubic drainage which, at times, means leaving the cystostomy wound wide open.

Neurogenic bladders are of two types, spastic and atonic. In each type the wall, in by far the largest percentage of instances will be diametrically opposite in muscle tone to that of the internal sphincter. The voluntary or external sphincter is the outlet to be evaluated in obstruction. In the atonic bladder infection rarely causes grave trouble, providing it is not overwhelming in its onset. In these cases catheters are well borne and kidney and secondary infections are the exception rather than the rule. In the opposite or spastic type, or in the type in which the voluntary sphincter is spastic with a compensated bladder wall back of this neurogenic obstruction, we are again dealing with those important changes which may, on catheterization or surgery, cause sepsis. That is, we are dealing with the same drainage problem as to management as in the bladder back of a prostatic obstruction. This holds true in spite of the fact that the retention is classified as neurogenic, a term which to some erroneously means paralytic bladder.

In all instances immediately following an injury involving the spinal cord there is a shock type of paralysis of the bladder. After a few days, tone to the bladder wall returns. The duration between the immediately flaccid period and the period of increased tonus depends on the extent and location of the injury. Because of the possibility of returning tone to the smooth muscle it is, in all instances, unwise to catheterize soon after the accident unless pain, hemorrhage or infection require it for catheterization will, in the presence of a residual urine, almost certainly invite infection. After return of some tone, stroking or stimulation of the skin of the lower abdomen or extremities will, at times, reflexly assist in the development of an automatic bladder. Manual expression raises intracystic pressure somewhat but considerable of the effects therefrom are due to the associated skin stimulation.

In such neurogenic bladders the atonic type can retain a residuum, if not infected, with little ill effect in many cases, while the spastic, voluntary or involuntary outlet bladder is, in my opinion, best drained suprapubically. Postoperatively, particularly after low abdominal, rectal or perineal surgery, we frequently encounter a type of reflex bladder, i. e., postoperative retention. In these instances we find marked bladder distention associated with pain. Determination of the intracystic pressures with a cystometer¹ show low pressure, normal sensation and a large capacity. The immediate

causes of the retention are multiple. In order of their importance I believe them to be: (1) Reflex inhibition from the operative wound; (2) fear of straining to void, that is, psychic inhibition; (3) position in bed; (4) overdistention of the bladder by intravenous fluids, and (5) effects of anesthetics and analgesics. As sensation remains normal we are faced with the problem of raising the low intracystic pressure or motor function. This can best be done by intermittent catheterization. The empty bladder has a greatly increased expulsive force per unit capacity. In this type the low intracystic pressure even in the presence of a residual urine markedly reduces the danger of infection and its spread by catheterization. Consequently, intermittent catheterization can, in a majority of cases, be carried on for two, three or more days if necessary. Such complicating infections as those of prostate, urethra, seminal vesicles and epididymis occur in a smaller percentage than with catheterization in a spastic bladder usually associated with a spastic urethra.

Postpartum urinary retention, on the other hand, occurs in a relatively anesthetic bladder with a large capacity and yet with a fixed wall, that is, a smooth musculature resistant to dilatation though not actively spastic. Such a functioning bladder cannot be catheterized intermittently for each time it is emptied its capacity is decreased and remains fixedly decreased. This, plus the trauma of catheterization with a residual urine, again sets the stage for infection and its dissemination as discussed in prostatic surgery. Furthermore, in these cases, secondary to pregnancy, the ureters are dilated to a greater or lesser degree and therefore furnish stasis for the growth of organisms. Particularly for this reason intermittent catheterization is decidedly less favorable treatment than the indwelling urethral catheter which furnishes the bladder free and constant drainage until the bladder function returns to normal.

CONCLUSIONS

In résumé, therefore, we attribute to the urinary bladder specific function which varies markedly in mechanical and in various types of neurogenic obstruction; in pyelitis in childhood and adulthood; in urinary retention associated with surgery not directly related to the urinary tract, and in postpartum urinary retention. We find that these various types of alteration from the normal bladder function influence kidney function directly through transmitted intracystic pressure, and directly or indirectly through infection. In retrospect over the years of urinary surgery, an analysis and understanding of bladder physiology offers

explanation for the often changing surgical principles with which we attack urinary obstruction and infection and which now definitely gives promise of better surgical results with a lowered mortality rate.

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LESIONS OF THE SUPERIOR MEDIASTINUM

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The various lesions of the superior mediastinum have been discussed separately by many authors. They bear a close relationship to each other from the clinical standpoint and frequently are difficult differential diagnostic problems. They require the cooperation of the clinician, radiologist and pathologist to determine their exact nature. It is generally supposed that they are rare. In the literature, either because of growing interest or because of more exact diagnosis, the number of cases has greatly increased. At Research Hospital there have been, from 1928 to 1936, nine cases of superior mediastinal lesions which were proven by necropsy and there are, in addition, two cases which are still living. Six of these cases are reported here.

The proper approach to an understanding of the diseases and the reasons for the clinical picture is through a brief review of the anatomy of this area. The mediastinum is roughly all of that portion of the chest lying between the two pleurae.^{1, 2} It extends from the upper border of the sternum down to the diaphragm. It is bounded anteriorly by the posterior border of the sternum and posteriorly by the vertebral column. The lateral limits are of course the medial reflections of the two pleurae. For convenience this region is subdivided into a superior and inferior portion, and the inferior portion is further divided and spoken of as being anterior, middle and posterior. The superior mediastinum is roughly all of that part of the mediastinum lying above the upper border of the pericardial sac. Specifically, it is all of the

mediastinum above an imaginary line passing from the junction of the manubrium and body of the sternum to the lower border of the fourth thoracic vertebra. The anterior mediastinum is the area in front of the pericardium; the middle, the portion containing the pericardium and its contents; and the posterior mediastinum, all of the region behind the pericardium. For the present subject matter, we will consider only the superior mediastinum.

Lesions in the superior mediastinum have few if any specific characteristics which differentiate the one from the other. Their symptoms and findings are largely based on alterations in neighboring structures which they produce by pressure. These may be quite varied and affect the respiratory, cardiovascular, gastro-intestinal or central nervous systems. One marvels at the large number of important structures contained therein, and can visualize the disturbances caused by pressure upon them. A cross section through the superior mediastinum reveals the following structures which may be involved:

Table 1. Structures Involved

1. Large vessels:
a. Aortic arch
b. Innominate artery
c. Left common carotid artery
d. Left subclavian vein
e. Innominate veins
f. Upper half superior vena cava
2. Trachea
3. Esophagus
4. Thoracic duct
5. Thymus gland
6. Vagus nerve
7. Cardiac nerves
8. Phrenic nerves
9. Left recurrent laryngeal nerve
10. Sympathetic chain

Realizing the large number of vital structures, it is possible to conceive of the many symptoms that may result. Decker in reporting an analysis of 100 cases of thymic tumors gives the following symptoms and findings and their relative frequency of occurrence:

Table 2. 100 Cases—Analysis of Symptomatology (After Decker³)

Subjective	Per cent	Objective	Per cent
Dyspnea	66	Physical signs of tumor in chest	55
Cough	48	Superficial venous stasis	
Pain	34	(including Stokes collar)	44
Dysphagia	27	Enlarged lymph nodes	30
Hoarseness	12	Cyanosis	29
Vomiting	6	Sputum	23
Sore throat	4	Weight loss	18
Choking	3	External tumor	17
Anorexia	1	Pleural effusion	17
		Fever	13
		Edema legs	10
		Nerve paralysis	5

From the clinical and the radiological standpoint, changes in the lung due to bronchial obstruction can not be too seriously emphasized; but the proper analysis of a given case with the

above symptoms and findings should direct one's attention to the focus in the superior mediastinum. The ultimate factors in diagnosis are the radiographic plate and the biopsy when this is possible.

The lesions may be divided into three large groups: Tumors, inflammations and aneurysms. The tumors may be subdivided further into whether they occur primarily or secondarily in the mediastinum. Often the first sign of a lesion in another part of the body may be the symptoms from a mediastinal growth. The usual sites from which they metastasize are stomach, breast, esophagus and lung. In these cases diagnosis depends on finding the primary source.

The primary tumors include, among others, new growths of the thymus, lymph nodes, thyroid and dermoid cysts. Dermoid cysts are embryonic rests arising from the ventral ectoderm or from bronchial clefts. In addition to finding of a tumor one may see teeth or bone in the radiographic plate. The thyroid may be entirely substernal but it usually lies also above the sternum and presents the picture associated with that organ.

The lymph nodes in the superior mediastinum may be involved in leukemias, Hodgkin's disease or a primary lymphosarcoma. With each of these the remaining constitutional picture helps in determining the exact nature of the process. This is especially true of lymphosarcoma which usually "occurs in children, occupies the thymic region and metastasizes widely."⁴

The thymus, being entirely a superior mediastinal structure, is interesting in its pathology. It arises from evaginations of the third and fourth bronchial clefts on either side. It weighs at birth about 7 grams and increases in size up to 15 years when it reaches a weight of from 20 to 28 grams. In some individuals it may undergo simple hypertrophy, as is so commonly seen in infants producing transient spells of cyanosis and crowing breathing. The malignant tumors are generally classed as thymomas because of a disagreement concerning the histological embryology.⁵ Ewing makes a classification calling them lymphosarcomas, carcinomas and thymic sarcomas which we will not consider here but use the broader grouping of thymomas.⁶ Their clinical picture is entirely based on regional pressure changes. They are slow growing tumors and tend to surround and cover rather than invade the neighboring structures. They have been described as being like cement poured around the rest of the organs. They do not metastasize readily or widely and may be found protruding above the clavicle or

metastasized to the glands of the neck and axilla. The radiologic evidence is characterized by a uniform bilateral thin opacity lying above the pericardium and the great vessels.⁴ Because they are very susceptible to radiation early diagnosis and intensive therapy are essential.

Inflammations are usually secondary to some other process.⁷ Acute mediastinitis is seen to follow surgical trauma, septic processes of the lungs and lymph nodes, especially in erysipelas, septicemia and scarletina. It may be the result of a direct extension downward from a retropharyngeal abscess. The clinical picture is that of substernal pain, chills, fever and leukocytosis. The radiographic plate presents an irregular, fuzzy shadow in the mediastinal area. More chronic forms affecting the lymph nodes are seen in tuberculosis and result largely in pressure signs with irregular, conglomerate masses. They are recognized as such on the radiographic plate.

Aneurysms form the third group of lesions in the superior mediastinum. They occur on the ascending, transverse or descending aorta and occasionally on the innominate artery. Those in the anterior portion are frequently called the aneurysm of sign and those posteriorly the aneurysm of symptom. From the relation with the other structures this grouping is evident. Suffice it to say that one's evidence of them is due to pressure on some neighboring structure. So we find the clinical picture of brassy cough, changes in voice, pain, dyspnea, palpitation, bruit and thrill and tracheal tug. Roentgen evidence is that of a dilatation of or off from the major vessel with usually a noticeable pulsation. The differentiation of aneurysm from the lesions mentioned above is difficult and often impossible.

One can best gain some idea of these various pathologic and clinical entities by consideration of a series of proven cases which should serve to bring out the symptomatology. Each of these cases serve to illustrate one of the following: Swelling of face and neck, dyspnea, tracheal obstruction, pain, voice changes. In them one will find physical signs of tumor, edema of face, neck and arms, superficial venous stasis, enlarged lymph nodes, cyanosis, bronchial obstruction, pleural and pericardial effusion.

REPORT OF CASES

Case 1. This patient, a male, aged 27, had a history of a chancre fourteen months before admission. Four months later he had a Vincent's mouth infection with cervical adenopathy and six months before admission he noticed enlarged veins on his chest. He had become weak, lost weight and recently developed marked dyspnea.

When seen he had a temperature of 102 F., pulse

100, blood pressure 130/80 and evident dyspnea. There was a marked collateral circulation developed over the entire aspect of the chest and an increase of dullness in the mediastinal area. Laboratory reports showed a positive Wassermann and Kahn reaction. The radiographic plate showed a large bilateral mass in the superior mediastinal area. These findings led to a differential diagnosis of infectious mediastinitis, thymic tumor or an aneurysm. Autopsy revealed a thymic tumor (thymoma) with thrombosis of the superior vena cava, bloody right pleural effusion, invasion into the right auricle and atelectasis of the right lower lobe of the lung.

This case illustrates the collateral circulation developed in obstruction of the superior vena cava through the subclavian, mammary, lateral thoracic, intercostal and epigastric veins.

Case 2. A married woman, aged 59, was admitted complaining of a swollen face. Nine months before she had pain and tenderness in the right posterior aspect of her neck. Three months later people commented on changes in her face and neck. Finally she developed definite swelling of the face, eyelids, neck and this extended to the upper extremities. She had some cough but no hemoptysis. She was afebrile, with moderate hypertension and no change in blood pressure between the two arms. Orthopnea and dyspnea were present. She had swelling of the face from the level of the eyes down over the neck and upper portion of the chest; both arms and breasts were swollen. The right temporal and costal veins at the level of the diaphragm were dilated. There was dullness, absence of tactile fremitus and breath sounds on the right side anteriorly over the middle two thirds of the chest. The radiographic plate supported a diagnosis of neoplasm of the right lung with extension to superior mediastinum and vena caval obstruction. This patient was given radiation therapy with improvement of the vena caval blockage but died ten months later with findings of bronchiogenic carcinoma and secondary mediastinal extension, right pleural effusion and thrombosis of the superior vena cava. This case is an example of secondary mediastinal involvement which gave the primary symptoms. The superior vena caval obstruction was evidenced by the swelling of the structures which that vein supplies.

Case 3. A white woman, aged 27, entered the hospital complaining of dyspnea which dated back three months. Two weeks before admission she developed gastric discomfort with flatulence and swelling of the left side of her neck, later followed by swelling of both sides of neck and cheeks. She had no fever, a respiratory rate of 40 and swelling of cheeks and neck. There were palpable cervical lymph nodes. Dullness of the left base involving two thirds of the lung field and of the lower half of the right lung with loss of vibratory phenomena on the left led to an impression of right bronchopneumonia and left pleural effusion. Roentgen therapy brought about marked improvement in the symptoms but she died three months later. Autopsy revealed thymoma with superior vena caval thrombosis, obstruction of the bronchus and growth into the pericardial sac. The bronchial obstruction and pericardial tumor with effusion here led to the dyspnea which was the outstanding symptom.

Case 4. A married woman, aged 22, was admitted on the obstetrical service, near term, in August, 1932. In March, 1932, she had noticed a firm, movable nodule above the middle of her neck which extended out to either side. She was given Lugol's solution for supposed thyroid enlargement, with regression. The pa-

tient was dyspneic, weak, easily fatigued and had recently developed a husky voice. Examination showed her to be dyspneic, to have fullness of the neck with bilateral enlargement of the thyroid area which extended substernally. The cervical lymph nodes were enlarged. Following cesarean section she had marked respiratory difficulty and expired. The radiographic plate in April, 1932, showed a slight widening of the superior mediastinum with a soft shadow extending up into the neck. This became very definite in the film of August, 1932, where the mediastinum was definitely widened and the tumor mass was seen to reach into the right side of the neck. Autopsy revealed a thymoma which had grown into the trachea and metastasized to the thyroid and cervical nodes. She represents the type of cases with lymph node involvement and tracheal obstruction.

Case 5. This patient was a male, aged 65, who was seen with pain in the left arm and precordial oppression. The picture was believed to be coronary disease. He returned three months later with a dry cough, dyspnea and an aching pain in the left chest. He showed dullness in the left upper chest with absence of vibratory phenomena and breath sounds. There was a stony, hard mass fixed above the left clavicle. The radiograph revealed a widening of the mediastinal area, retraction of the left lung field with considerable debris in the bronchial tree, indicative of bronchial obstruction and the tumor mass above the left clavicle. Autopsy revealed a thymic tumor which had extended into the left bronchial area producing obstruction and metastases to the supraclavicular nodes.

This represents a clinical picture of pain in the left chest and arm and cough, which was mistaken for coronary disease. The mass in the clavicular area was evidently responsible for the arm pain and the pressure on the bronchus produced the cough.

Case 6. A white male, aged 57, entered the hospital complaining of hoarseness. Eighteen months before he had noted pressure in the upper left chest. He developed a cold and it was followed by his becoming hoarse. At times he was unable to speak above a whisper. There was a history of gonorrhea but not of syphilis. Examination showed an area of dullness extending out from the superior mediastinum into the middle clavicular area. He had no cardiac findings. The radiograph showed a massive tumor in the left upper chest with no pulsation under the fluoroscope. At necropsy a large aneurysm was found which arose from the arch of the aorta. On hemisection the aneurysm was filled with a large laminated clot which explains the absence of pulsation under the fluoroscope. The trachea was compressed.

The outstanding features here from a diagnostic point are the voice changes and the area extending out into the lung field from the mediastinum. The absence of pulsation and cardiac findings render the differential diagnosis difficult.

We have attempted to discuss the superior mediastinal lesions as a clinical entity from the standpoint of diagnosis. The picture is best appreciated by visualizing the anatomy of the area and accounting for the findings by pressure on or involvement of the structures which it contains. The six cases presented serve to illustrate the more important symptoms and signs. The final differentiation depends upon careful radiologic examination and the biopsy

of lymph nodes when they are found. Early diagnosis is important as the thymic tumors are very susceptible to radiation therapy and this may serve as a therapeutic test.

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DISCUSSION

DR. IRA H. LOCKWOOD, Kansas City: There probably is no definite increase in the incidence of mediastinal lesions but certainly there are many more reported cases in the literature. This is probably due to a more careful and thorough examination of the individual who complains of respiratory embarrassment and who may have edema of the face, neck or upper extremities, rise of temperature, dry cough, hoarseness, dysphagia, pain, disturbance of the basal rate, dilated veins of the upper thorax and enlarged glands above the clavicle.

The diagnosis must be made from the history, clinical and laboratory findings, roentgen examination, the microscopical examination of tissue removed, bronchoscopy and bronchography, remembering that the structures primarily involved are the large veins, heart, trachea, esophagus, thoracic duct, thymus gland, lymph nodes in the mediastinum, vagus nerve, recurrent laryngeal, phrenic and sympathetic trunks, and that secondary tumors arise from lesions of the stomach, lungs, breast, esophagus, bronchi and from inflammatory changes, chiefly tuberculosis.

The diagnosis of tumors of the superior mediastinum may present difficulties because of varying size, shape and density of the same type of tumors in different individuals. The roentgen ray plays an important part both from its diagnostic and therapeutic application, and the roentgenologist must consider the size, shape and contour and the relation of the lesion to surrounding structures and the secondary changes due to pressure, as atelectasis or pleural effusions, the latter of which may be due to either secondary involvement or pressure on some of the main vessels. Whether the lesion is unilateral, bilateral, movable or fixed, pulsates or displaces other structures, an attempt should be made to differentiate between primary and secondary lesions and whether they are benign or malignant.

DR. FREDERICK C. NARR, Kansas City: One of the interesting features of thymic tumors to a pathologist is classification. In the paper under discussion we have used the term "thymoma" because there is no unanimity of opinion as to the derivation of the tumors. The embryologist and cytologist cannot agree as to the nature of the cells that are present in thymic tumors.

In Dr. Bell's paper you heard the origin of the thymus; that up to a certain stage it is of epithelial origin and then, according to some embryologists, there is ingrowth into this epithelial structure of lymphocytes. They point out that these "lymphocytes" respond to cytolytic changes that have been produced from lymphocytes,

that their appearance is clearly like that of lymphocytes and they are radio sensitive as are lymphocytes.

Other embryologists believe these small round cells are of epithelial origin and call them thymocytes. This school points out that in pathologic conditions producing widespread lymph node involvement the thymus rarely takes part.

Sensitivity to radiation is not confined to the lymphocytes alone. Recently we saw a patient with definite roentgen ray evidence of a superior mediastinal mass and superior vena cava obstruction. This mass disappeared under roentgen ray therapy. The patient, however, died without evidence of superior mediastinal tumor but a large retroperitoneal mass which was proven a reticulocytoma.

Such discussion is perhaps beside the point in an audience which is concerned with the facts of medical practice. I would merely like to bring out that there is no agreement or uniformity in classification of tumors of the thymus.

DR. M. PINSON NEAL, Columbia: In this discussion of primary tumors of the mediastinum, particularly as pertains to the malignancies of the thymus, the remarks by Dr. Narr anticipated much that has been my experience.

I have reported five primary tumors of the mediastinum in the last few years, seen in Columbia. I do not agree that we cannot tell the type of tumor of the thymus. Pathologists should definitely diagnose and classify 95 per cent of them. I think we should go the limit in classifying these and all other tumors, using special stains and, if need be, radiation sensitivity tests. Only by such minute detailed classification and grading will the profession get anywhere with selective treatment of tumors.

I think the essayist is to be commended for bringing his subject before this assembly. The question of diagnosis is of very great importance and must be participated in by the clinician, the roentgenologist and the pathologist. The majority of mediastinal tumors are diagnosed by radiation sensitivity tests or at autopsy. Occasionally a sentinel subcutaneous lymph node develops and lends itself to biopsy diagnosis. Otherwise the biopsies on mediastinal growths are fraught with such dangers that they are rarely employed.

DR. M. F. ARBUCKLE, St. Louis: Within the last few years we have witnessed marked progress in the methods of diagnosing and treating mediastinal tumors. As a result of this improvement the mortality rate in this type of disease has been materially reduced. In the field of thoracic surgery procedures which a few years ago were technically impractical may now be carried out with reasonable assurance of success in a high percentage of cases. In the field of radiation therapy recent advances have changed entirely our conception of the treatment of disease by this remedy. Coupled with these improvements in treatment have been improvements in the methods of study.

A diagnostic aid of great value at times is direct inspection of the tracheobronchial tree by bronchoscopy. In a number of cases seen in the chest service of the Washington University Medical School group of hospitals in collaboration with Drs. Graham, Singer, Goldman and others, we have occasionally been able by bronchoscopic examination to obtain information on which a diagnosis could be based. Such information includes an inspection of the interior of the tracheobronchial tree with notation of visible changes present, if any, the recovery of specimen of secretions for bacteriological and cytological study and of biopsy specimen for microscopic study. Changes in position and contour of the trachea and tubes also have an important

bearing. At times negative information also is valuable.

The case of a child, age $4\frac{1}{2}$ years, sent in by Dr. E. E. Glenn, Springfield, in June, 1935, with a diagnosis of thoracic tumor demonstrates these points. The history was that of dyspnea, cyanosis, stridor, hoarseness, underweight, lack of appetite and anemia. The roentgen ray plate showed a shadow behind the upper part of the sternum. Barium in the esophagus showed a deviation of this organ around the tumor. The lumen of the trachea described a curve to the left of the midline. Because of the hoarseness, a direct laryngoscopy and at the same time inspection of the trachea was made. No papilloma of the larynx or other laryngeal disease was discovered. The lumen of the trachea at the level of the tumor was narrowed so that it was a semilunar slit rather than an oval or round opening. Because a high percentage of tumors in this region are radiosensitive, treatment by radiation therapy was recommended. After this treatment there was slight increase in tracheal obstruction for two or three days but not sufficiently great to require intervention. After this, the symptoms rapidly receded and on examination two months later the child was symptom free and had begun to eat and grow and showed a remarkable improvement in her general appearance. The chest film showed no sign of the tumor. On a recent visit her condition was still improved.

A REVIEW OF SOME OF THE INCISIONS USED FOR APPENDECTOMY WITH DESCRIPTION OF AN ADDITIONAL ONE

EDWARD VERNON MASTIN, M.D.

ST. LOUIS

Ternelius,¹ in 1567, described what seems to be the first reported case of appendicitis, though the appendix was not recognized as the cause. In 1735 is found the first authentic reference to removal of the appendix in a human being during life. Claudius Amyand,² while operating on a boy aged 11 years for the cure of an irreducible scrotal hernia with a discharging sinus from the thigh, discovered the appendix lying in the hernial sac. The appendix had been perforated by the point of a pin, the head remaining within the appendix. When the repair of the hernia was commenced no good could be seen for the appendix so a ligature was passed about it and it was amputated. The boy recovered from the operation. Heisler,³ in 1753, published the details of an autopsy in which the vermiform appendix was gangrenous and was found lying in a pool of pus. In 1759, Mestivier,⁴ a French surgeon, was the first to operate for appendiceal abscess, but no attempt was made to remove the appendix. In 1812, Parkinson⁵ of England reported two deaths due to perforation of the appendix as proved by autopsy. In 1815 Prescott⁶ was the first surgeon

in America to report a death from perforation of the appendix which had been demonstrated by postmortem examination. In 1824, Villermay,⁷ a French surgeon, reported three deaths due to perforation of the appendix as proved by autopsy. Willard Parker,⁸ as early as 1843, advocated and practiced early incision for appendiceal abscess. In 1848, an English surgeon, Hancock,⁹ performed the first deliberate laparotomy for appendiceal suppuration.

The earliest incisions for appendicitis were made almost parallel to the inguinal ligament and about 1 inch above it, dividing all of the structures in the line of the skin incision. The next step was to make this incision higher up on the abdomen and thus avoid the transverse division of the fibers of the internal oblique and transversalis muscles.

In 1884, Krönlein,¹⁰ a Zurich surgeon, was the first to operate for appendicitis and remove the appendix. The patient died three days later. The incision was through the linea alba. In 1884, Gagen Thorn¹¹ used a straight incision through the right rectus for removal of the appendix. In January, 1885, W. W. Grant¹² of Denver was the first American surgeon to deliberately open the abdomen for removal of the appendix. He states that the incision was three inches long and oblique, similar in position to the McBurney incision. Robert J. Hall¹³ of New York, the next American operator, removed an appendix at the Roosevelt Hospital on May 8, 1886, and reported the case in the *New York Medical Journal*, June 12, 1886. On February 16, 1887, Sir Frederick Treves,¹⁴ who was 34 years of age and a full surgeon at the London Hospital, did his first appendix operation, which was the first time the abdomen was deliberately opened for the cure of appendicitis in England. A vertical incision immediately over the region of the cecum was used. The appendix was found kinked at an acute angle by dense adhesions. The adhesions were severed, the appendix was straightened out so that it could drain freely and the patient made a satisfactory recovery.

The early operative incision described by McBurney¹⁵ prior to 1893 was as follows: The incision begins as high as the umbilicus and extends downward for four or five inches in a line just lateral to the right rectus muscle. The aponeurosis of the external oblique is next divided for about the same distance, and next the fascia outside of the rectus is divided through the linea semilunaris. John B. Murphy¹⁶ did his first appendectomy on March 2, 1889, and used a vertical incision through the outer margin of the right rectus muscle, one half inch to the central side of the semilunaris. The incision which is known today as the McBurney incision

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is still very popular and was originally proposed by McBurney in 1893. He made an incision four inches long in the direction of the fibers of the external oblique about one inch from the anterior superior spine of the ileum, crossing a line drawn from it to the umbilicus nearly at right angles. One third of the incision is above this line. The external oblique fibers and the aponeurosis are divided in the line of the skin incision and the fibers of the internal oblique muscle and transversalis muscle are separated in a direction which is nearly at right angles to those of the above muscles. The peritoneum is then opened in a similar line.

In 1895, Battle¹⁷ described an incision made along the outer edge of the rectus muscle. The skin is drawn medially and the anterior lamina of the rectus sheath is incised longitudinally. The rectus muscle is displaced medially and the posterior lamina of the rectus sheath is incised longitudinally and the peritoneum is opened.

In 1896, J. W. Elliott¹⁸ described the first transverse incision as follows: Incision began one half inch inside the linea semilunaris and was continued toward the anterior superior spine of the ileum in the line of the internal oblique fibers. The external oblique was divided in the line of the skin incision and the internal oblique and transversalis muscles were separated in the line of their fibers and in the line of the incision above. If more room were needed he suggested that an incision be made vertically in the line of the linea semilunaris.

In 1897 Kammerer¹⁹ described a right pararectus incision which was the same as the Battle incision described two years previously, and at about the same time a French surgeon, Jalaquier,²⁰ also described it.

As early as 1898, it was felt that the McBurney incision did not always give sufficient exposure and Harrington²¹ in 1899 and Weir²² in 1900 suggested a method of enlarging it by continuing the separation of the internal oblique and transversalis muscles medially and then dividing the sheath of the rectus and retracting the muscle medially.

In the same year, 1898, G. R. Fowler²³ described a modified McBurney's incision which was known as the Fowler incision. A slightly curved incision is made with the center just to the outside of McBurney's point, the external oblique aponeurosis is separated in the line of its fibers and retracted exposing the internal oblique muscle and the rectus sheath. The rectus sheath is divided longitudinally for one to two inches. Next the internal oblique muscle and transversalis muscles are divided through the line of their fibers and the incision is extended into the incised rectus sheath. The rec-

tus muscle is retracted medially and when the peritoneum is incised adequate exposure is obtained.

Lennander,²⁴ in 1898, and Edebohls,²⁵ in 1899, stressed the ease of operating with better exposure and described an incision by going directly through the right rectus muscle instead of drawing it to one side. This incision had been described by Murphy ten years previously.

In 1905, A. E. Rockey²⁶ described his transverse incision. For easy cases, the incision is one and one half inches long and is directly transverse and on a line with the anterior superior spine of the ileum and its center is the linea semilunaris. The aponeurosis of the external oblique muscle is divided on a line with the skin incision. The fibers of the internal oblique and transversalis muscles are separated and the peritoneum is opened. When more exposure is desired the incision can be prolonged laterally to the anterior superior spine by further separation of the internal oblique and transversalis fibers and medially by dividing the anterior sheath of the rectus and retracting the muscle medially and then dividing the posterior sheath and peritoneum. In January, 1906, G. G. Davis,²⁷ of Philadelphia, independently described a transverse incision which is identical with the one described by Rockey two months earlier. Later in 1906, Charles Davison²⁸ described his operation as a short incision through the abdominal wall in the lines of the linea semilunaris.

In 1907, Franz Torek²⁹ described an incision which he devised so that he could repair a right inguinal hernia and remove an appendix at the same time. An imaginary line is drawn from the anterior superior spine to the umbilicus. A point on this line at a distance equal to one fourth of its length from the iliac spine marks the beginning of the incision and it is carried down obliquely to the subcutaneous inguinal ring. The aponeurosis of the external oblique is divided in the direction of its fibers and the hernia operation is proceeded with in a routine manner up to the point where the sac is removed. Now the fibers of the internal oblique and transversalis muscles are separated as in the usual McBurney incision, the peritoneum is opened and the appendix removed. This incision is then closed and the hernia operation is completed.

In 1908, Legeu,³⁰ while removing the right kidney of a patient, noticed that it would be easy to remove the appendix at the same time, which he did. He became so enthusiastic about the procedure that he recommended it as a routine procedure. This had been previously suggested by Edebohls³¹ in 1902. During this same year, 1908, Levison,³² following the thought of

Edebohls and Legeu, made a lumbar incision for removal of an acute retrocecal appendix. An incision about four inches long is made about one and one half inches above the crest of the ileum and extending one inch in front of the anterior superior spine of the ileum. The fibers of the external oblique are retracted and the fibers of the internal oblique and transversalis are also separated by sufficient retraction and the peritoneum opened. This operation has been recommended by many other surgeons.

K. Wendelmann,³³ in 1909, described a transverse incision in an article entitled "Laparotomy Through Transverse Incision of the Post Rectus Sheath." Both the anterior and posterior lamina of the rectus sheaths of the right and left recti muscles are cut transversely and both recti are retracted laterally, which gives adequate exposure for dealing with the appendix and surrounding structures.

In 1912, R. H. Fowler³⁴ called attention with illustrations to the Fowler incision which had been previously described by his father, G. R. Fowler²³ in 1899.

In 1915, DeTarnowsky³⁵ advised the routine removal of the appendix through the internal inguinal ring whenever a right inguinal hernia was operated upon. The usual herniotomy incision was employed.

In 1916, J. T. Nix, Jr.³⁶ suggested removal of the appendix through the inguinal canal through a one inch incision using one suture for closure with a total confinement of three days in the hospital. He admitted that if the appendix was retrocecal it could not be removed through this incision.

In 1918, Skillern³⁷ described the transverse incision of Davis and recommended it highly for routine use in appendicitis operations.

In 1918, L. F. Watson³⁸ described what he calls a low lateral incision for appendectomy as follows: A point one and one half inches from the right anterior superior spine on a level with a line connecting the two superior spines is selected for the beginning of a slightly oblique incision which extends directly downward for two to three inches to a point just above and to the inner side of the internal abdominal ring. The aponeurosis of the external oblique and the external oblique muscle are divided in the direction of its fibers and in the line of the incision. The medial flap is undermined until the linea semilunaris is exposed. At this point the internal oblique and transversalis muscles are separated in a line nearly parallel to the incision in the external oblique and the peritoneum is opened just over the base of the cecum.

Whitlocke's³⁹ incision is a muscle splitting one described for removal of the appendix through the right iliac fossa when no explora-

tion is called for. He describes the incision as the para-ilio-spino-inguinal incision, or ilio-inguinal for brevity's sake. The incision is made about one half inch medial to the anterior superior spine of the ileum and parallel with it and the inguinal ligament. The anterior superior iliac spine forms the center of the incision which is generally about two and one half to three inches long, but this may be enlarged both ways if necessary. The incision divides the skin, superficial fascia and aponeurosis of the external oblique muscle. Retraction will now expose the internal oblique muscle. The fibers are separated in a normal line of cleavage together with the transversalis muscle and the peritoneum is opened.

In 1924, Edward H. Wood⁴⁰ recommended an incision in the line of the fibers of the external oblique muscles three to four inches in length, one inch medial to the right anterior superior iliac spine and centered one inch below the iliac spine. The muscles are separated as in the McBurney incision down to the peritoneal fat. The peritoneum is now stripped from the lateral abdominal wall to within one or two inches of its reflection on the cecum; at this point the peritoneum is pulled upward and opened posteriorly and the appendix is delivered.

In 1924, Willy Meyer⁴¹ called attention to an additional posterior incision when, due to the location of the appendix, he was unable to remove it through the ordinary anterior incision. If the McBurney incision was used, he continues it upward and backward above the crest of the ileum following the line of fibers of the external oblique muscle and then cut the internal oblique and transversalis muscles prior to opening the peritoneum. In case a pararectus incision was made, it was abandoned. A sand bag is placed under the patient's right hip and an incision is made, beginning from an imaginary line running between the anterior superior spine of the ileum and the umbilicus, extending upward one inch above the iliac crest toward the right kidney for three inches. The external oblique muscle fibers are separated and the internal oblique and transversalis muscles are divided and the peritoneum is opened. Willy Meyer called attention to this incision in 1912 and 1915 and has stated that he used the incision as early as 1896.

Rowlands⁴² in his paper on "Operations for Acute Appendicitis" in 1925 states that he uses the paramedian incision, making a longitudinal opening in the rectus sheath and retracts the rectus muscle laterally.

In 1926 E. Zeh Hawkes⁴³ suggested a method of enlarging the McBurney incision in addition to the routine enlargement laterally by extend-

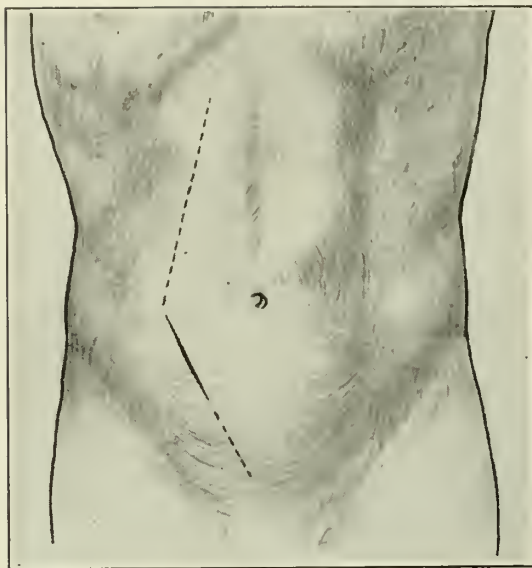


Fig. 1.

ing the incision into the linea semilunaris and extending it upward or downward as much as is needed.

In 1926 De Mendonca⁴⁴ described a longitudinal incision four to nine centimeters in length and situated three centimeters medial to the anterior superior spine of the ileum. The middle of this incision cuts a horizontal line that passes through this spine. The skin is dissected from the aponeurosis of the external oblique and the fibers are spread with a guarded Péan forcep; similarly the fibers of the internal oblique and transversalis muscles are spread apart and the peritoneum is opened through a very small incision and the appendix is delivered.

In 1929 Devine⁴⁵ describes an incision similar to McBurney's which he enlarges by making a transverse incision in the anterior lamina of the rectus sheath and if further exposure is needed he divides the rectus sheath longitudinally upward or downward or both. In 1929 Janota⁴⁶ describes what he calls "Sprengel's incision" as an oblique opening two and one half to three centimeters long, exactly over the supposed locations of the appendix and going directly through all the layers of the abdominal wall. Particular care is used to avoid injury to the blood vessels and nerves. Closure is accomplished by using a single suture in each muscular layer.

In 1931 A. L. Soresi⁴⁷ describes a lateroposterior incision for appendectomy which runs parallel to the axillary line and begins near the lower border of the twelfth rib, extending down to the crest of the ileum, running about two centimeters behind the anterior superior spine of

the ileum. The fibers of the external oblique are separated and the fibers of the internal oblique and transversalis are separated in the opposite direction. Upon opening the peritoneum the posterior part of the cecum is exposed. This is claimed to be especially good for a retrocecal appendix.

In 1932 Colt and Morrison⁴⁸ reviewed 1599 operations for appendicitis at the Aberdeen Royal Infirmary from a statistical standpoint. They concluded that the type of incision played an important part in their mortality rate and demonstrated this by the following table.

Importance of Type of Incision

Incision	Number of Cases	Mortality Percentage
Battle	438	2.74
Paracentral	911	6.26
McBurney	250	7.20

In 1932, Gurd⁴⁹ described a transverse incision which is a slight modification of the Rockey and Davis incisions, the only difference being that the incision is placed at a higher level and thus may be more readily enlarged laterally if need be. It is so placed that the lateral border of the incision is on a line three to four centimeters above the anterior superior spine of the ileum and the medial border is two to three centimeters below the umbilicus.

In 1934 Cowell⁵⁰ described what he calls "a concealed incision for interval appendicectomy" which is a modification of the Pfannenstiel incision. A curved skin incision is made above the symphysis pubis with its convexity upwards so that the upper border of the pubic hair will

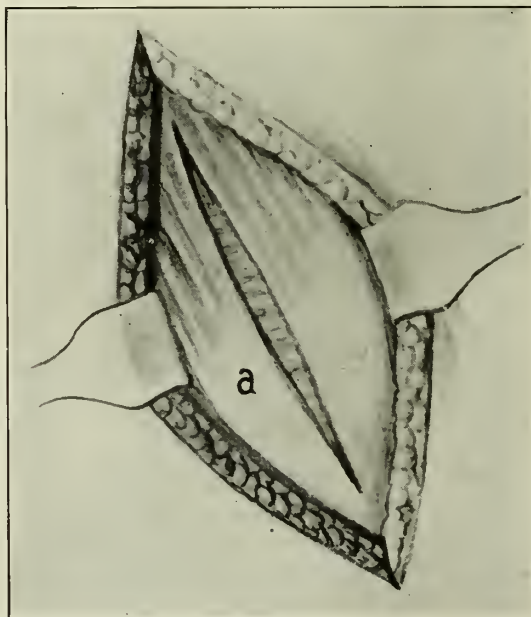


Fig. 2.

cover the incision later on. This flap is undermined sufficiently to allow a four or five inch vertical incision in the right rectus muscle.

Fiske and Rhams,⁵¹ in 1934, called attention to a new incision described as follows: The skin incision is started from a point midway between the umbilicus and the symphysis pubis and at the outer third of the right rectus muscle it is continued outward and upward passing two fingers' breadth above the anterior superior iliac spine and running parallel to and one finger's breadth above the iliac crest. The aponeurosis of the external oblique and the external oblique muscle are split in the direction of its fibers. The transversalis muscle fibers are separated in the line of cleavage and the peritoneum is opened. The incision can be easily enlarged laterally and can be enlarged medially by incising the rectus sheath.

Having read this partial review of the literature on appendicitis and the various operations that have been suggested for removal of the appendix, we are at once impressed with the idea that none of the incisions suggested are ideal for all conditions.

The incision to be described, which I have called a fascia splitting incision, allows all of the exposure of a right rectus incision and the closure is just as strong if not stronger than the ordinary muscle splitting incision. By splitting the rectus sheath, it can easily be enlarged downward for pelvic work, or upward for removal of the gallbladder without weakening the closure of the abdominal wall. (See dotted lines on figure 1.) I have used it for more than

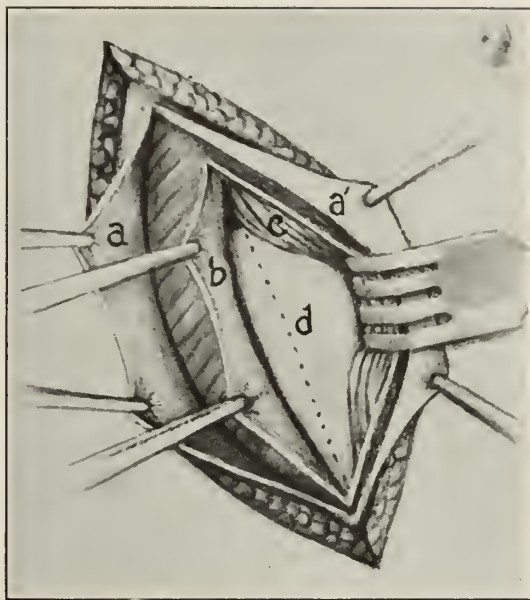


Fig. 4.

seven years and have found it highly satisfactory.

The incision is made one half inch to the right of the midpoint of a line drawn from the umbilicus to the anterior superior spine of the ileum, beginning one half inch above this line and extending downward for two and one half to four inches (depending on the size of the individual) parallel with the fibers of the aponeurosis of the external oblique. (Figure 1.)

The subcutaneous tissues are retracted, exposing the aponeurosis of the external oblique (a in figure 2) which has been divided. The transverse fibers of the internal oblique muscle are seen through the cut in the aponeurosis of the external oblique.

The lateral layer of the aponeurosis of the external oblique (a in figure 3) is dissected free and retracted laterally. The medial layer (a' in figure 3) is dissected free up to the point where it fuses with the anterior lamina of the rectus sheath (b in figure 3). The dotted line shows the line of incision to be made through the anterior lamina of the rectus sheath.

The incision has now been made (figure 4) through the anterior lamina of the rectus sheath (b) and the rectus muscle (c) is retracted medially. At this point the nerves entering the rectus muscle and lying on the posterior lamina of the sheath can usually be easily retracted and preserved when the incision is made through the posterior lamina of the rectus sheath (d).

The abdomen has been opened, retractors are in place, and the cecum and appendix are easily exposed. (See Fig. 5.) The beginning of the closure can be seen in figure 6. The posterior

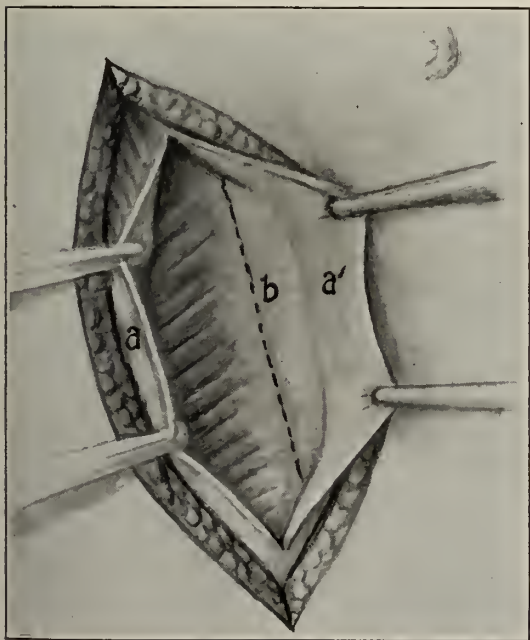


Fig. 3.

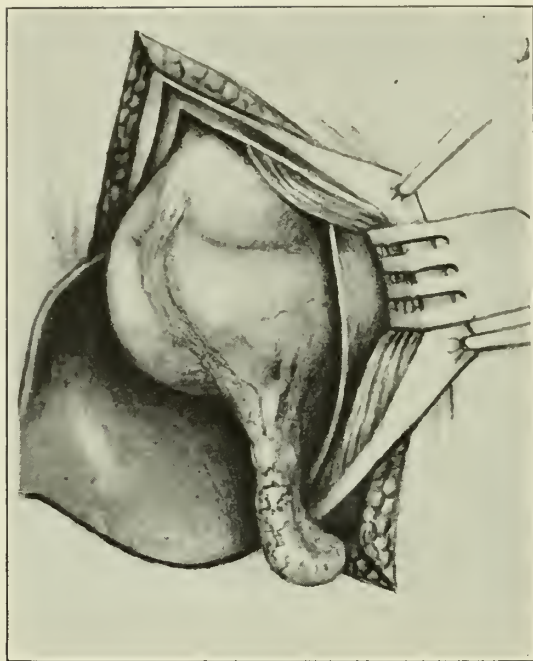


Fig. 5.

lamina of the rectus sheath (d) has been closed. The rectus muscle (c in figure 7) occupies its normal position, and the anterior lamina of the rectus sheath (b) is being closed.

The lateral flap of the aponeurosis of the external oblique (a in figure 8) is now sutured over the suture line in the anterior lamina of the rectus sheath (b), giving additional strength to the wound. The wound is further strengthened by imbricating the medial flap of the aponeurosis of the external oblique (a in figure 9) over the lateral flap of the aponeurosis of the

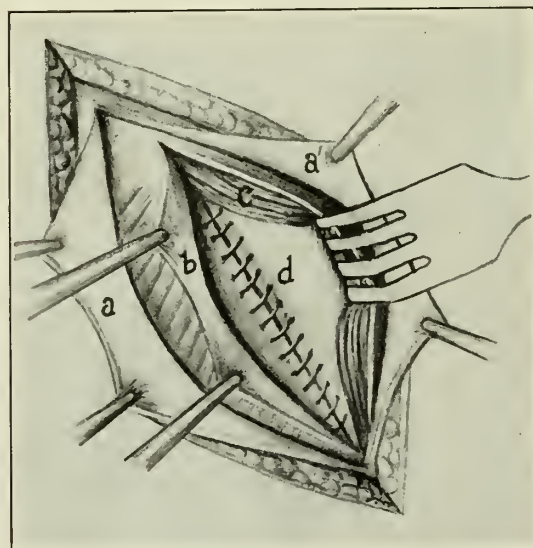


Fig. 6.

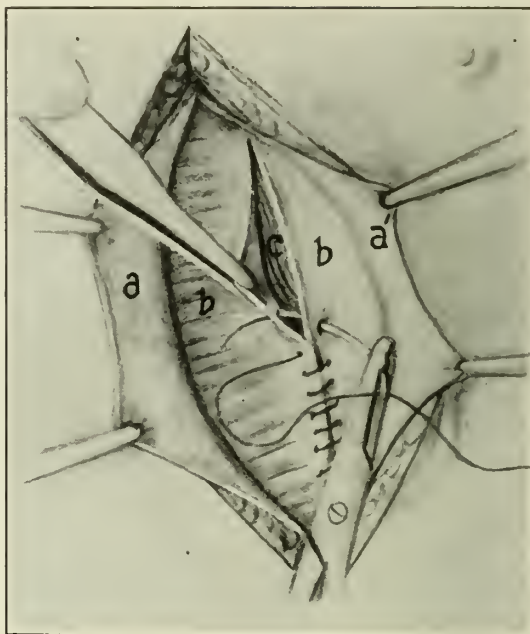


Fig. 7.

external oblique (a). The subcutaneous structures are approximated with fine catgut and the skin closed in a routine manner.

Figure 10 shows a cross-section of the abdominal wall, including the line of the incision.

It will be noted that the closure is particularly strong since there has been no interference with the blood supply, no muscles have been separated or cut and the entire nerve supply to the rectus muscle can generally be preserved.

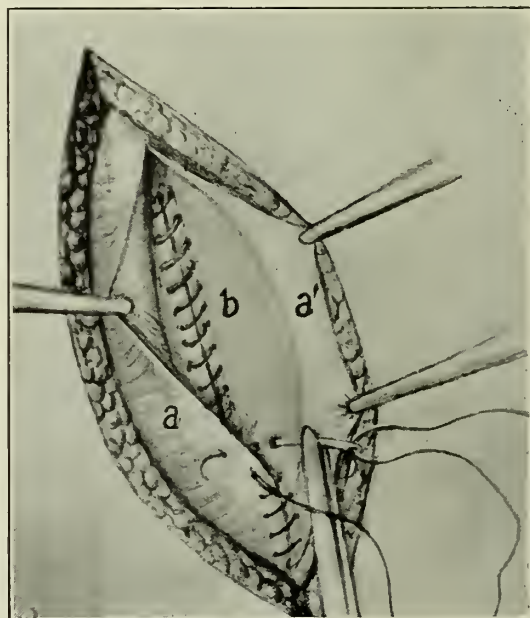


Fig. 8.

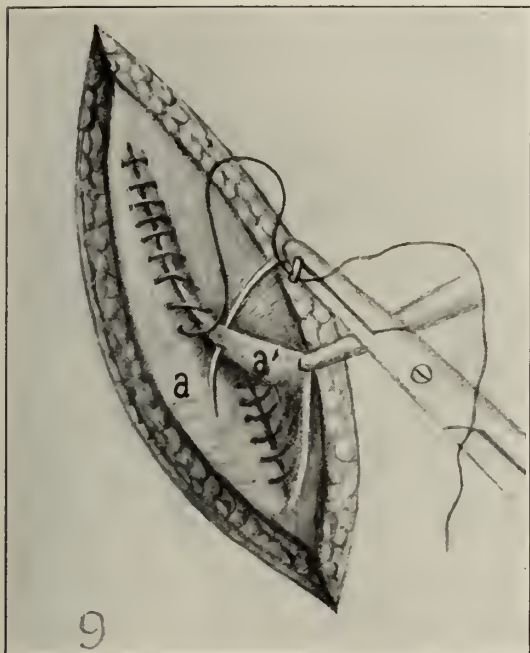


Fig. 9.

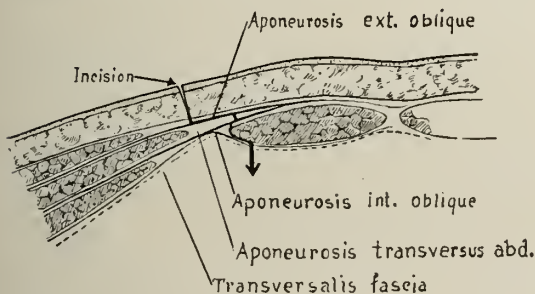


Fig. 10.

This is purely a fascia splitting incision and the closure is further strengthened by imbrication of the medial and lateral flaps of the aponeurosis of the external oblique over the suture line of the rectus sheath.

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THE ILEOCECAL SEGMENT

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The diagnosis of conditions giving symptoms referable to the right abdomen involves many considerations and is open to many errors. The usual and predominant symptom is pain or discomfort. Malfunction of some right abdominal organ may precede the onset of pain and thereby give suggestion, through the clinical history, of the site of origin of the trouble. Systemic symptoms, especially fever and its accompaniments, may testify to the far advance of the underlying pathology. The diagnosis will involve considerations with the indicated examinations of the liver, the gallbladder, the duodenum, the right kidney and its ureter, the right fallopian tube and ovary and of the ileocecal segment of the intestine, which is the restricted subject of this paper due to the limitations of time.

The emergencies of acute disease seldom proceed from the ileocecal segment, in which term is included the ileum, cecum and ascending colon. Acute disease of the right abdomen involves the consideration of acute cholecystitis, perforation of duodenal ulcer, acute appendicitis, acute pyelitis, Dietl's crisis, renal calculus, ruptured right tubal pregnancy, acute right pyosalpinx, and the twisted pedicle of a tumor of the female pelvic organs. Acute disease is more often declarative of its nature and origin than is chronic or subacute disease. In less urgent conditions of the right abdomen it is usual and correct to consider first the gallbladder and the appendix, as these certainly account for a large proportion of all right-sided abdominal diseases. The question of the gallbladder has found almost complete solution in the use of cholecystography. The appendix, however, may neither be dismissed nor incriminated with such certainty. It must be considered along with the problems of intrinsic disease of the ileocecal segment, which it often shares. Very frequently, however, in these patients it is soon discovered that the appendix has already departed the scene and this promptly dramatizes the other possibilities of direct and pathologic change in this segment.

While it is possible for me to restrict my discussion chiefly to this segment, it is not possible for a clinician so arbitrarily to limit his investigations. By what means, then, will his diagnosis be directed to the ileocecal segment of the intestine and to the recognition of its diseased state? The clinical history is of primary

usefulness. Either it will reveal the disturbances of function, which incriminate one or another organ, or it will elicit a train of symptoms which are recognizable as of a definite disease. The abdominal examination will reveal anatomical alterations, chiefly palpable tenderness and often a mass which when present are localizing in their inferences. The absence of abnormal physical findings will force reliance upon other methods. The laboratory examination of the blood, the urine and the stool may give direction to other investigations. The special methods of examination, gastro-intestinal roentgenology, cystoscopy and ureteral catheterization with roentgenography, proctosigmoidoscopy, and cholecystography are used too often because of the personal interest to the clinician before securing an exhaustive history, adequate physical examination and routine laboratory investigations. Special methods should be employed only after the fundamental procedures have been fully used and have indicated the diagnostic problem to which they are applicable. The gastro-intestinal roentgen examination should be used to review completely the gastro-intestinal tract rather than to observe a restricted segment for confirmation or rejection of some tentative diagnosis. Diseases of the ileocecal area cannot be investigated per se, but their diagnosis will be the logical outcome of the summary of findings after complete examination of the patient and of his gastro-intestinal tract has been made.

Chronic appendicitis is a very real and important condition. After a period of hasty and superficial diagnosis, which entailed a reproachful percentage of surgical failures, we have just finished a period in which almost complete denial of the condition was current. Now the challenge to its accurate diagnosis is accepted. Adequate examination will reveal chronic appendicitis, both separately and associated with other abdominal diseases. My own views upon the position of chronic appendicitis and its diagnosis in diseases of the gastro-intestinal tract have been published and I shall not now discuss the matter extensively. Certainly the gastro-intestinal roentgen examination may develop objective evidences of appendiceal pathology which will be of primary importance in determining its diseased state and its relation to the clinical problems of the abdomen. The ectopic position of the appendix, leading to confusion of its symptoms with those of other organs and embarrassing its surgical care, is of especial interest. It is only by means of the gastro-intestinal roentgen examination that the appendix and the ileocecal segment can be visualized.

The anatomy of the ileocecal segment may vary in a manner which will greatly influence segmental and total colonic functions. Aside from the true anomalies of rotation of the colon, I have never observed that the processes of embryological development have failed to create the hepatic flexure. Beyond the hepatic flexure, however, the migration of the colon may have been arrested at any level, between the high subhepatic position and the lowest position in the true pelvis. The cecum may even invade the left pelvis. This hyperrotation, which carries the cecum into the pelvis must be distinguished from the simple pelvic position of the cecum as it occurs in the congenital visceroptosis of the asthenic bodily habitus, in which case there is no increase in the usual length of the right colon. Tonus of the bowel is of greater importance in malfunction than is its topographical position. The long right colon of hyperrotation gives an anatomical basis for right colonic functional stasis and constipation. Any depression of its muscular tone is the cause of a slowing of the segmental motility proportional to its unusual length. Absorption and inspissation are exaggerated. Obstinate stasis may result. Fecal accumulation may cause persistent discomfort by general pressure or by pressure upon the pelvic organs. Localized dilatation of the cecum, or megacecum, is not infrequently seen. It is more often congenital than acquired. In the greater dilatations a functional compensation occurs which corrects the tendency to stasis. The absorbing faculty of the mucosa increases stasis by inspissation of the contents in the lesser dilatations, but this faculty of absorption is lost in the greater dilatation, and the contents remain fluid and are washed into the distal bowel by the oncoming intestinal contents. There is excellent motility in these greater dilatations according to the criteria of the roentgen opaque meal.

Diverticulosis of the right colon may occur independently; but it is usually part of a general colonic diverticulosis, which has its greatest expression in the sigmoid. Diverticulitis may, however, develop independently in those diverticula located in the right colonic segments. Inflammation of a cecal diverticulum will so simulate subacute appendicitis that only the roentgenological demonstration of the diverticulum and of a quiescent appendix will determine the diagnosis, and this is not so simple as it sounds.

Inflammation of diverticula in the hepatic flexure gives an almost perfect simulation of subacute gallbladder disease. Again only the roentgenological demonstration of diverticula in this area and also of a functioning gallbladder by cholecystography will satisfy the diagnosis.

With a nonfunctioning gallbladder the source of symptoms would be confused beyond complete clinical solution. The importance of a complete and correct diagnosis for avoiding an operative interference is obvious, since the medical management of any diverticulitis is alone permissible, prior to the development of peridiverticulitis and obstruction of the bowel.

The cecum may have preternatural mobility when the right cecocolon has great length by reason of its hyperrotation. The excessive growth of the colon pushing the cecum into the right pelvis will have favored the persistence of the right mesocolon. The condition is in no sense essentially pathological, and only seldom gives rise to clinical manifestations when displacement of the mobile cecum occurs in a manner to disturb its function and that of the ileum. Displacement and torsion very rarely reach a degree to cause complete intestinal obstruction. Clinical differentiation of the symptoms due to this condition from those of other subacute regional disease is difficult. It is essential to show that symptoms arise with the malposition of the movable cecum and are relieved by the recovery of usual topography. Roentgenological studies during an attack should demonstrate the displaced cecum and the gaseous distention of the affected segments; and similar studies at other times, when there are no symptoms, should show usual topographical arrangements.

Chronic intussusception of the ileocecal valve occasionally exists and may produce a painful palpable mass suggestive of inflammatory hyperplastic disease. The roentgen investigation may reveal the condition or it may require surgical elucidation.

Hyperplastic disease in the cecum is, at all adult ages, usually cancer. Primary tuberculosis of the cecum is so infrequent in the United States that it may be considered only with care. Actinomycosis is likewise very rare. Other causes for hyperplastic granulomata have been encountered. In one instance a fishbone had punctured the terminal ileum. A fortunate adherence to the cecum and to the peritoneum of the anterior abdominal wall had localized the abscess. The bone lay in the wound when the intestine was freed from the abdominal wall. Occurring in an elderly man the preoperative diagnosis had been cancer. It was of interest that, after convalescence from the operation, there was demonstrated in this patient the gastric achlorhydria which the escape of this bone from the decalcifying action of hydrochloric acid had suggested.

In another instance a young colored woman presented herself for the repair of a great prolapsing ventral hernia which had followed two

operations, first appendectomy and second right salpingectomy, both without relief of the original symptom. A straight pin was demonstrated roentgenologically to lie in a calcified, old abscess cavity at the ileocecal juncture. In a young white woman, a nurse, who had an appendectomy without complete relief, a mass palpable near the cecum suggested the diagnosis of a localized ileitis. The cecum was without demonstrable disease. Exploration explained the palpable tumor by finding the omentum adherent to the peritoneal side of the scar of the previous operation.

The cecum and the cecocolic segments of the large intestine are subject to inflammatory reactions of degrees varying from simple catarrhal irritation to extensive ulceration by bacterial invasion of the walls. Primary nonspecific typhlitis or cecitis occur not because of any uncommon virulence of the usual flora, but because other conditions have favored the entry of those bacteria into the tissues of the wall. This intestinal segment always shows the most abundant bacterial growth of any part of the gastrointestinal tract, due to the factors of slow segmental transport and greater fluidity.

Conceptions of the etiology of typhlitis have in the past centered about the idea of stercoral stasis and impaired motility of the colon. This conception must be changed in the light of mechanisms revealed by recent observations upon the pathology of infections of the intestinal mucous membrane and upon the motility of the ileocecal segment. Stercoral stasis found in association is the result of motor impairment by advanced disease and is a result rather than a cause. The condition is early characterized by irritable hypermotility. Acute typhlitis having surgical complications is rare in relation to the incidence of acute appendicitis and its sequelae. Surgical opinion has generally insisted that acute typhlitis, when it occurs, is usually the natural accompaniment of the forerunning appendicitis and that it seldom occurs independently. Little cognizance has been given to a persistent typhlitis as the reason for the disappointment by the nonrelief of symptoms which so often arise after the appendix has been removed. The conception of an appendicitis as the necessary precursor to typhlitis has led to assertions that cecal tuberculosis is only the sequel of appendiceal tuberculosis. Early conceptions of typhlitis have been confused by the conception of coprostasis as the antecedent cause. Notable coprostasis in the cecum certainly if cecal impaction is connoted by that term in its pathological usage, is even more rare than other infrequent cecal diseases. Ulceration of the cecum probably never occurs simply

as the result of fecal stasis; and right colonic constipation is not necessarily accompanied by typhlitis. By simple catarrhal typhlitis is meant a chronic, afebrile, more or less extensive right colitis. It may occur without a demonstrably altered or tender appendix and may itself wholly account for the clinical syndrome. In the roentgenogram the feathery contour of the barium enema filled cecum will reveal the mucus which characterizes the condition, and there will be an accelerated motility of the cecum due partly to its irritable state and partly to impaired absorption.

Primary, nonspecific inflammatory typhlitis is distinguished by the exclusion of cecal tuberculosis, actinomycosis, amebiasis and typhoid, and by the fact that the only bacterial agents found are the usual inhabitants of the cecum. The various degrees of primary typhlitis require clinical differentiation from primary appendicitis, and from the specific acute forms of typhlitis. The fact that the tissue and segment reactions are the same regardless of the etiological factor makes the use of the generic term typhlitis somewhat more conducive to clear thinking than is the commitment implied in the use of an etiological term. It is important that nonspecific typhlitis has an incidence very much greater than is commonly supposed and that its surgical varieties are more frequent than are those due to specific organisms, with the exception, that secondary tuberculosis of the cecum occurs in a large majority of all cases of the open pulmonary disease.

The symptoms of typhlitis vary according to the degree of irritation or inflammation and to the pathological reaction of the cecal tissues. Diarrhea is more usually present with advanced typhlitis than with appendicitis except as the two conditions are coexistent. The pain or discomfort of typhlitis is postdigestive in time, three to four hours after meals, and often colicky in character. This may be superimposed upon a constant dull ache. It may be mistaken for the hunger pain of duodenal ulcer.

Simple catarrhal typhlitis has protean symptoms of bloating or "gas," distention, constipation alternating with diarrhea, and may occur without fever or other toxic symptoms. Excessive flatus is characteristically malodorous from putrefaction, or mild from fermentation of carbohydrate. The tongue is furred and the breath is bad. The manifestations of nervous dyspepsia are present and low abdominal discomfort forms the patient's chief complaint. Disturbances in the motility and secretion of the stomach may be reflexly produced. Diffuse tenderness over the cecum may be the only physical sign. This will be followed by mus-

cular rigidity and an indefinite tumefaction as the condition advances, when either chronic perityphlitic adenitis occurs or a primary ulcerative typhlitis develops. This latter may be an acute ulcerative typhlitis, or a more chronic, primary, nonspecific granulomatous pathology. The terminal ileum often shares in the pathological change.

With advance beyond a simple primary, catarrhal typhlitis, the symptoms become more severe and acute; diffuse discomfort changes to localized pain; constipation often is replaced by diarrhea, especially in the absence of a sigmoid redundancy, which would by absorption buffer the proximal hypermotility. Local tenderness increases and may become exquisite if the serosa of the cecum is involved. Fever accompanies the ulcerative processes.

There is no clinical or roentgenologic means whereby primary typhlitis may be differentiated from specific forms. The roentgen ray will not make a tissue diagnosis. Simple, primary, catarrhal typhlitis has no accompaniments suggesting or accounting for a specific agent. The milder cases of primary, ulcerative typhlitis resemble amebic disease of the cecum, and severe primary ulcerative typhlitis duplicates indistinguishably ulcerative tuberculosis of the cecum except that no associated active pulmonary disease can be demonstrated. The palpable tumor of a granuloma must suggest cancer even at the earlier age of the occurrence of typhlitis. Typhlitis may be part of a pancolitis of any variety. The fact that colitis commonly affects the distal colonic segments earlier and more severely, serves to emphasize the different nature of any process restricted to the right colon.

Typhlitis disturbs the physiology of the cecocolon in a manner to exhibit a characteristic handling of the barium meal and enema. The degree of these alterations of physiology indicates the severity of the inflammatory process, and in late stages of the process the anatomical alterations themselves may be evident by filling defects in the barium shadow. The disease causes irritability of the segment, interferes with and stops absorption, and by both these conditions, increases segmental motility as seen roentgenologically.

Simple catarrhal typhlitis will be manifested by more or less pronounced increase in roentgenologic motility of the segment. Instead of the cecum and ascending colon only, of all the large intestine, showing barium at the six hour period, the contrast substance will have advanced well into the transverse colon or beyond. At twenty-four hours, instead of the proximal colon showing, as usual, a considerable barium residue, it will have cleared itself almost com-

pletely of this contrast substance. The barium enema will show the right cecocolon orthotonic or slightly hypotonic, and the contours will be variably irregular, foamy or moth-eaten, because of mucous exudate upon the luminal surface. The cecum has free mobility. The ileocecal valve often will be incompetent. Peristalsis cannot be elicited by palpation as no palpable irritability is present. Tenderness to palpation is moderate and diffuse over the cecum.

In ulcerative typhlitis the affected segments show all of these changes in motility, in degree according to the progress of the pathology. Tenderness increases. Irritability increases into spasm; and peristalsis and emptying of the cecocolon can now be stimulated by regional abdominal palpation and may be observed fluoroscopically. Perityphlitis and regional adenitis are evidenced by fixation of the ileocecal junction. Granuloma is revealed by a filling defect in the contour of the cecum which coincides with a palpable mass. In advanced stages of the disease the reactions are quite the same as in secondary tuberculosis of the cecum.

The roentgenologic signs which lead to the diagnosis of ileocecal tuberculosis are not specific effects of the tubercle bacillus, but are seen in any irritative and ulcerative disease of the cecum. When used in the roentgenologic work of tuberculosis sanatoria upon tuberculous patients these signs may however be accorded an almost pathognomonic significance indicating tuberculosis; but when used in a general hospital they must be interpreted with greater discrimination. It is true that these signs were first observed in tuberculous patients and have been considered the classic sign of the ileocecal tuberculosis simultaneously described by Stierlin and Pirie; but in the absence of any open pulmonary tuberculosis they cannot have the direct significance originally accorded. Cancer of the cecum may give the same segmental hypermotility as a tuberculoma.

The principal sign of ileocecal or cecocolic ulceration, the progressively increasing intolerance of the cecum to any content, makes it non-retentive of the barium meal, which normally would accumulate and tarry in that segment because it of all the large intestine has the least tonus and slowest normal motility. In the late cases with extensive ulceration, the intolerance of the cecum is readily demonstrated by any meal test or by a barium enema. It will be appreciated that spasm and hyperperistalsis are more prominent manifestations than is the contour defect of the lesion itself.

The irritability of the cecum in the very early stages, when its intolerance of barium is not so definite and constant, may be elicited during

fluoroscopic palpation. This maneuver allows diagnosis to be advanced to an earlier stage. In all cases of ulcerative involvement, peristalsis of the terminal ileum may be excited by palpation. This will result in its clearance into the partially filled or empty and relaxed cecum, which will, together with the ascending colon, contract and propel the barium mass forward. Ensuing spasm of the cecocolon then inhibits temporarily further peristalsis of the ileum.

Whenever in the course of gastro-intestinal roentgenology the cecum is empty at a time when normally it should be filled, further study by duplicate contrast meals should be made to confirm or dismiss the very pertinent suggestion of ulcerative involvement. The emptying of the cecum, as induced by direct palpation, will not be observed in other than cases of primary or secondary ulcerative typhlitis, although palpation to determine cecal mobility and appendiceal tenderness is a routine maneuver at the twenty four hour period of all gastro-intestinal roentgenologic observations.

The terminal ileum is often involved in the disease processes which are primary to the cecum and colon. Secondary ulcerative tuberculosis which begins in the ileocecal segment is seldom restricted to the cecum. The pathology of ulcerative colitis often invades the ileum and nonspecific typhlitis generally does. This is not unrelated to the large amount of the lymphoid tissue formed in the ileocecal segment which by its presence testifies to the bacterial assaults which occur here. The terminal ileum is known to acquire some of the functions of the colon and at the same time to assume some of its anatomical characteristics in a manner that may be designated as colonization of the ileum. Granuloma is restricted to the ileum relatively infrequently. Such independent disease is usually idiopathic or nonspecific in character. Specific disease, especially tuberculosis, has only extremely rarely a similar restricted location. Nonspecific granuloma of the terminal ileum can be finally diagnosed only by the restricted pathology found at operation or at autopsy as by the histopathology which eliminates specific disease. The symptoms are those characteristic of all pathology of the ileocecal segment which embarrasses peristalsis and motor transport and creates a hyperplastic mass with serosal irritation. Pain is of a cramping character more or less localized to the right lower quadrant and, after the peritoneum becomes irritated, has associated a dull tenderness made noticeable by movement. Diarrhea or constipation may accompany this and they often alternate. Fever is intermittent and is seldom high. The course of the condition is usually prolonged but may

be acute and then resembles subacute appendicitis for which it is often mistaken, especially when no mass is palpable. The stenotic stage of the chronic condition is usually reached before either the patient or physician is impressed with the serious or organic nature of the disease. Stenosis is incomplete and relative to solid food remnants passing through the stricture and the physical signs of obstruction are variable and intermittent. A mass becomes palpable as the condition progresses and reaches the stenotic stage. There is a loss of weight associated with weakness and anemia. The appendix is often removed in the early indeterminate phases of the condition.

REPORT OF CASES

Three cases may be briefly reviewed. A school girl, aged 18, acquired a persistent but moderate diarrhea. Fever soon began and presented the afternoon rise so usual with tuberculosis. Loss of weight was gradual and therapy was without effect. Hospitalization was postponed to allow graduation. Her symptoms were progressive during four months, after which the patient went to the hospital where a complete examination was secured. The diarrhea had increased moderately and the fever now reached 104 degrees in the afternoons. There was palpable resistance and tenderness over the cecum and a sense of tumefaction. The lungs gave no evidence of active disease but a few calcified nodes were present. Gastro-intestinal roentgenology showed definitely localized disease of the cecum. In consultation I advised resection of the cecum, but it was decided to continue bed rest and medical management longer.

Two months later operation was accepted in the sense of a last resort and the cecum, ascending colon and terminal ileum were resected by Dr. A. O. Fisher. The surgical operative note was as follows: "There was a small amount of free fluid, and extensive involvement of the terminal ileum, the cecum and the ascending colon, consisting in a thickening of the entire bowel wall, usual with tuberculosis. The neighboring mesenteric glands were likewise enlarged except in the angle at the ileocecal junction. The involved portion of the ileum and large bowel was resected, going well above the diseased tissue at either end. This necessitated taking out about 10 to 12 inches of ileum and the large bowel somewhat distal to the hepatic flexure."

Recovery from the operation was ideal; the reversal of the clinical course was spectacular; the hyperpyrexia ceased at once and nutrition immediately improved. In ten weeks the patient gained from 89 pounds to 125 pounds. She has been in perfect health for six years since the operation. The clinical picture, except for the absence of pulmonary tuberculosis and the absence of bacilli in the stools, was the same as that seen in secondary ulcerative tuberculosis. The gross specimen was indistinguishable from secondary ulcerative tuberculosis. Histologic examination showed no evidence of tuberculosis but only chronic inflammatory disease.

Another young woman, aged 29, was investigated for chronic appendicitis because of pain and discomfort in the right lower quadrant of the abdomen. The gastrointestinal roentgen ray showed a definite deformity of the cecum about the ileocecal valve. Subsequent examination revealed definite moisture in the lungs and a constant but slight temperature and with-

out any demonstration of tubercle bacilli in the very scant sputum. During a period of three months all signs of pulmonary activity and the temperature disappeared and she gained over twenty pounds. Once there occurred transitory symptoms of acute intestinal obstruction. In spite of the clinical improvement the ileocecal lesion had increased in size. The cecum and terminal ileum were resected by Dr. Fisher. His operative note read as follows: "There was no free fluid in the peritoneal cavity. The cecum was fixed by old adhesions and could not be delivered easily. At the ileocecal junction there was a diffuse inflammatory process which had caused a great deal of induration. The inflammatory process did not involve much of the cecum itself beyond the ileocecal valve, but the terminal ileum was extensively involved and there were numerous areas of inflammation probably at the site of Peyer's patches. These ulcerative areas extended up the ileum for about eighteen inches beyond which point no more were found. The mesentery was extensively involved in this tuberculous process, the glands being enlarged over a considerable area."

The patient's recovery from the operation was excellent. She has been in perfect health since. The resected tissue showed characteristic tuberculosis histology.

A young man, aged 23, entered the hospital because of attacks of abdominal cramps and vomiting which had increased greatly in frequency and severity since he had visited the outpatient department two years previously. He had been a patient in the hospital one year previously. During the periods of abdominal cramping, an intestinal pattern was evident across the lower abdomen. There was a definite mass palpable in the right lower quadrant which was moderately tender to palpation. Roentgenologic studies localized the palpable mass to the terminal ileum, revealed a cecum of normal contour and showed moderately dilated small intestinal forms. The diagnosis was small intestinal obstruction due to inflammatory disease of the terminal ileum.

Dr. Y. A. Olch operated and his notes read as follows: "Opening the peritoneal cavity about 50 cc. of straw colored fluid was found and evacuated. The terminal ileum, from a point 2 cm. above the ileocecal valve and extending for a distance of about 15 cm. was very hard, and in the middle of this region there was a definite area of stenosis. On the serosal surface there were many small translucent nodules. All the tissues were edematous and the ileum above this point was thickened and showed the effect of long standing chronic obstruction. Just above this point the patient also had Meckel's diverticulum which, however, showed no gross effect of inflammation. The first part of the cecum and about twenty inches of terminal ileum were resected and a lateral enterocolostomy was made."

The patient made a good recovery and has been well ever since. The histologic examination of the specimen gave no evidence of tuberculosis, but only nonspecific chronic inflammatory disease.

These cases illustrate instances of unavoidable surgical indication in both suspected and presumptive intestinal tuberculosis and they demonstrate not only the difficulties of clinically making an etiologic diagnosis but the excellent clinical result from the surgical extirpation of the pathology.

INTRATHYROID THERAPY FOR HYPERTHYROIDISM

A PRELIMINARY REPORT

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The treatment of hyperthyroidism, both hyperplasia of the gland and toxic adenoma, remains one of the great challenges to medicine, particularly in the great number of cases where there has developed the consequent disturbance of nutrition and cardiac symptoms or the thyroidectomized syndrome as described by Bergmann.¹ The surgical removal of the gland is frequently hazardous, disabling and incapacitating for long periods, requires highest surgical skill and hospitalization, carries a financial burden not easily borne by the average family and has an unenviable percentage of failures; the medical care has been slow, indifferent and indirect and has been absolutely no aid against adenoma. Consequently, a method of treatment which may be comparable to surgery, in selected cases, without the expense and hazards is to be desired.

Observing the effects of the injection of sclerosing material into hemorrhoids in many hundreds of cases, we find that within 30 minutes after injection into the tissues leukocytic infiltration takes place. In two hours lymphocytes begin to appear and at eight to ten hours the general appearance is that of a subacute inflammatory process with lymphocytic infiltration and a serous exudate. After this stage fibroblasts appear and after three to six days fibrosis develops.

Hypothyroidism and myxedema are the antitheses of hyperthyroidism. In myxedema the thyroid is atrophic and in the advanced cases it is hard and converted into a mass of fibrous tissue with a complete disappearance of the parenchymatous tissue.

With these two facts in mind, it occurred to me that if I could produce fibrous tissue in the thyroid gland in hyperthyroidism beneficial results would follow.

The selection of a sclerosing agent to use was the next problem. Any agent which was corrosive, toxic or that might cause necrosis and slough could not be used for injection into the thyroid.

In my earlier experiments I used an aqueous solution of phenol of varying strengths but, due to possibilities of unfavorable sequelae, I discontinued its use. I am now using a sclerosing solution which produces the minimum amount of exudative reaction after its injection. It is practically painless when injected; it stim-

ulates the growth of fibrous tissue; it is non-toxic and it produces no systemic reaction.

It has been my experience that inasmuch as we are dealing with an endocrine gland each case must have a complete examination from an endocrine standpoint and that the most satisfactory results have been obtained in the cases in which the course of injections into the thyroid was followed by a course of supportive endocrine therapy.

The interrelationship of the thyroid, the ovaries and the pituitary during a period of ovarian insufficiency or of pituitary hypertrophy is nothing more than an attempt to meet the demand of supply by inhibition or stimulation.

If, by producing fibrosis in the thyroid we reduce its activity and lessen its output it is only reasonable to assume that we must then aid the system by supportive endocrine therapy to bring about a proper endocrine balance with the glands which are cooperative with the thyroid; namely, the pituitary and the gonads.

The thyroid gland itself is best examined with the patient lying comfortably on the back, the neck extended, a small, firm pillow under the shoulders. Such a position draws the gland upward, exposing it from behind the manubrium sterni and allows inspection to determine its size, shape and contour.

The gland can best be palpated by standing behind the patient's head and placing the fingertips pointing downward along the front and side of the neck. On deglutition the gland is drawn upward under the observer's finger due to the attachment of its capsule to the hyoid bone; thus, an estimate should include not only the isthmus but also the lateral lobes.

Its texture should be noted as it may vary from the hardness of a neoplasm to the elastic vascular texture of hyperthyroidism. The presence of nodules should be noted and the degree of vascularity estimated.

The technic of injection includes the following points:

1. Strict asepsis must be employed.

2. Locate the cricoid cartilage; one half to one centimeter below the cricoid is normally found the isthmus of the thyroid, then at a point one and one half to two centimeters laterally, with the needle directed posteriorly, the body of the gland can be injected. After puncturing the skin, the needle is pushed downward to the platysma which usually offers slight resistance. The needle is inserted its full length through the capsule of the thyroid into the gland.

3. Deposit small amounts of solution at three or four points, radially or fan shape locations from one puncture to the body of the gland.

4. After two or three treatments to the body

of the gland, treat the upper and lower portions of the gland attempting to produce fibrosis in the region of the blood supply to the gland.

5. Each time the point of the needle is changed, make retraction on the plunger of the syringe in order to determine whether or not the point is in a blood vessel. The feel of the plunger of the syringe will indicate the tissue being injected. Do not use forceful pressure. That would indicate that the point of the needle is in fibrous tissue and additional injection there would possibly produce a pressure necrosis.

Due to the variability in the size and lobular thickness of the thyroid extreme care must be used in making deep injections to prevent the formation of fibrosis on the posterior surface of the thyroid, which might involve the parathyroid glands and cause serious or troublesome complications.

In my injections, I use a Becton-Dickinson Security Needle, 26 gauge, $\frac{5}{8}$ inch long. This needle has a small round ball near the hub of the needle and in case of breakage of the needle, due to the patient's swallowing as many of them do, the break always occurs between the ball and the hub and the ball prevents the broken point from becoming imbedded or lost in the tissue.

Inasmuch as this paper is a preliminary report I shall discuss the several solutions and pathology in a subsequent paper.

I am reporting five typical cases from my series. The diagnosis in the following cases was made by a recognized clinic or clinician. No other medication was given during my treatment of the thyroid in these cases.

REPORT OF CASES

Case 1. Mrs. J. W., aged 31, definite diagnosis of thyrotoxicosis made by Alfred Benjamin Dispensary and General Hospital in Kansas City. She had been under treatment for four years. When I first saw her she weighed 101 pounds, pulse rate of 120, blood and urine negative, B. M. R. plus 20, and was taking from six to eight "nerve pills" daily on account of nervousness and was having frequent crying spells daily. She received her first injection on August 8, 1935, into the right lobe of thyroid gland and again on August 13 and on August 20. Pulse rate on August 20 was 96. I did not inject her thyroid again until October 16. At that time she weighed 107 pounds, had cried only once and had taken but one "nerve pill" since the first injection. These four injections are the only treatments that this patient has received. She became pregnant in November and weighed 108 pounds. By March 27, 1936, her weight had increased to 136 pounds. Her pulse rate was in the upper 80's and B. M. R. was normal. The latter part of June she lost her baby at seven months, the third stillborn child since her marriage. She has one living child, 14 years old. She was quite ill at the hospital. She had a blood pressure of 220 and was confined in the hospital about ten days. Before she left the hospital her weight was 119, her pulse rate 91 and B. M. R. minus 5. In a



Fig. 1. Mrs. F., case 4, before treatment, July 8, 1936.



Fig. 2. Same as case 4, after treatment, November 12, 1936.

recent report, she states that she has completed recovered from her recent illness and is feeling fine.

Case 2. Miss M., aged 24, diagnosis of thyrotoxicosis made at General Hospital, pulse rate 110, B. M. R. plus 23. Urine and blood negative. On March 30, 1936, she received her first injection into the thyroid gland. On April 16, her pulse was 68. On April 24, 1936, B. M. R. made at General Hospital was plus 0.3. On May 18, 1936, pulse was 80 and she had gained 2 pounds in weight. Patient states that she is feeling much better and can do lots of things now that she could not do four weeks ago. On August 5, 1936, pulse was 75. Patient felt fine. On August 17, 1936, pulse was 80. Patient states that she is feeling fine, not at all nervous, very active and does not tire easily as she used to do.

Case 3. Mrs. B., aged 19. This patient has been under treatment at the West Side Clinic for the last several years. A diagnosis of hyperthyroidism has been made. She is 5 feet, 4½ inches tall and weighs 94 pounds. Pulse rate for last two or three years had been in excess of 130. B. M. R. was plus 32. Blood and urine negative. I saw her first on July 14 when I gave her the first injection into the thyroid. She was given other treatments on July 21, 28, and August 11, 18 and 25. The pulse rate at the last treatment was 90 and she had gained 5 pounds in weight. She states that many of her friends remark that she is looking much better. Her nervous symptoms have improved greatly and the size of the gland is considerably reduced. On September 23, 1936, B. M. R. was plus 16. This patient states that she felt better the last month than she has any time the last four years.

Case 4. Mrs. F., aged 29, married. Diagnosis of hyperthyroidism was made at General Hospital, Kansas City, Missouri. She had a pulse rate of 160, definite tremors and definite exophthalmos. Urine and blood negative, weight 98¼ pounds, B. M. R. plus 66. I gave her her first injection July 9, 1936. On July 14, injection was made into the right lobe. Pulse 136, weight 100 pounds. On July 27, 1936, pulse was 120.

Injection was made into the left lobe. August 5, 1936, pulse was 110, weight 100 pounds. No injection. Friends remark that she looks much better and patient states that she feels that her eyes are not so "starey." Nervous symptoms not much improved. On August 24, 1936, pulse was 105, weight 101. Other injections were made August 18 and September 19. Her weight remains 101 and pulse 105. Supportive glandular therapy was then begun and on October 1, her pulse rate was 88, weight 105. Nervous symptoms are much improved and exophthalmos reduced over 75 per cent. October 24, weight 109 pounds, pulse 86. On November 13, pulse rate was 86, weight 109 pounds, basal metabolism plus 25.

Case 5. Mrs. P., aged 32. This patient was confined to the General Hospital in 1929, and at that time a diagnosis was recorded as follows: (1) Angina pectoris; (2) partial heart block, and (3) colloid goiter. This patient is 5½ feet tall, weighs 91 pounds, blood and urine negative. She has a definitely enlarged thyroid gland which interferes with swallowing and causes a choking sensation. She has frequent anginal attacks and continuous precordial pain. In August, 1935, her pulse rate was 80 and the B. M. R. was minus 12. Electrocardiograph shows a partial heart block. This patient has been in the hospital on three different occasions for operation on the thyroid but when the cardiac condition was found the operative procedure was deferred. She came to me in August, 1936, insisting that I treat her thyroid. She has received seven injections into the gland and is now having no difficulty in swallowing and the choking sensation is entirely relieved. She has had only one heart attack, no precordial pain and no dyspnea on exertion since the second treatment. The gland is reduced at least two thirds in size and she gained 5 pounds in weight. This gain in weight is in spite of her working as a cook in a small restaurant 12 to 15 hours daily, and the temperature of Kansas City the past summer was in excess of 100 degrees daily with a maximum of 113 degrees. Dr. Graham Asher, cardiologist, states that an electrocardio-

graph made October 31, 1936, compared with one he made in August, 1935, shows a definite improvement in conduction.

CONCLUSIONS

1. The treatment is suggested for the relief of the symptoms of hyperthyroidism, both hyperplasia of the gland and toxic adenoma.

2. In experienced hands the treatment is a harmless procedure and, in the majority of cases, may be given at the office.

3. It does not produce the shock which accompanies all surgical procedures. It is in most cases nonconfining and not disabling.

4. It is practically painless. The only after-effect is a soreness or stiffness of the neck for four to eight hours.

5. If the injection is made well within the gland, there will be no adhesions around the gland and subsequent operation, if necessary, will not be made more difficult because of adhesions.

6. Small infiltrations, frequently repeated, with an occasional rest period and followed by a course of supportive endocrine therapy, are preferable to massive injections.

I wish to acknowledge valued assistance given to me in this work by Dr. Victor Henry Bergmann, endocrinologist; Dr. Graham Asher, cardiologist, and Dr. Ferdinand C. Helwig, pathologist.

818 Professional Building.

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GENERAL ACQUIRED ANHIDROSIS: REPORT OF CASE AND INVESTIGATIONS OF HEAT REGULATION AND CIRCULATION

Mogens Fog, Copenhagen, Denmark, (*Journal A. M. A.*, Dec. 19, 1936), reports a case of anhidrosis in a patient in whom cessation of the function of sweating occurred after he had previously been perfectly normal in this respect. The patient, aged 27, until a long febrile illness (paratyphoid fever) six years prior to the examination had had normal sweat secretion. He complained of extremely distressing symptoms under circumstances in which sweat secretion normally takes place. By means of a series of pharmacologic and physical tests the author verified the patient's statement that he could not perspire. A biopsy from the skin showed that about one half of the sweat glands were present while the other half had undergone degeneration. By means of a number of muscular activity experiments it was determined that during increased heat production in the body the patient's heat regulation was normal but that signs of circulatory insufficiency arose which must be ascribed to extreme vascular dilatation in the skin. This forms the basis for a compensating, excessive loss of heat through conduction and radiation. Continued observations of the patient during two years and a half showed that the symptoms remained unchanged.

CONGENITAL MALARIA

WALLACE D. ENGLISH, M.D.

CARDWELL, MO.

REPORT OF CASES

The first case that I want to present is the one of Baby Kirkendall, white, female, 3 days old. The baby was born on September 19, 1936. It was slightly cyanotic and there was a little trouble in resuscitation. On September 22, 1936, the father called speaking in a distressed tone of voice saying that the baby had a high fever, was very yellow and had been crying nearly all night. With further history from the mother I found that the baby had been blue around the head, the hands and the feet and that they were cold.

I took three malaria slides. On examination of the smear I found one crescent gamete of the estivo-autumnal parasite, also a few ring forms. The red blood cells showed anisocytosis, poikilocytosis and some polychromatophilia.

The mother had had trouble with her kidneys and head all the time she was carrying the baby. The day of delivery she had a chill. Her head hurt severely, she vomited bile and ached all over. After thorough medication with quinine she said she felt much better.

Case 2. This case is one of a set of triplets born on April 3, 1936, two boys and a girl. When Jackie Boyce was 6 days old his temperature rose to 105 degrees, he had blue spells of his head and body and at times would stop breathing. The next day the other boy and the girl were having blue spells. On the following day the babies were taken to the hospital and one boy died on the tenth day of his life and the other two babies died on the eleventh day. The mother had suffered during the entire time of pregnancy with her kidneys and had been having fever. At the hospital I asked the Sister to have a malaria slide made but for some reason the request was overlooked. The triplets were seven month babies.

Case 3. Baby Dunigan, white, female, 2 days old, developed a fever of 103 degrees; head and feet became blue and cold and the baby was sweating. The mother all through the prenatal period seemed to be in good health.

Four cases of congenital malaria (blood manifest immediately or shortly after birth) or hereditary malaria (blood positive only after several days) are reported by van Nitsen¹ treated with atebrian and cured with one exception, this patient being resistant to quinine.

The dosage is interesting for despite the very low body weight of some of the cases (92.02) this varied from 2.5 to 10 centigrams daily.

It is clear that malaria contracted in utero is very resistant and requires energetic treatment.

When treating these cases I gave the infants the following: Quinine drams 1, syrup Eriodyctyon ounces 4, given five times daily. The dose may seem large but I have obtained good results from it and so far I have not seen any marked idiosyncrasies.

It is noteworthy that two of the mothers had suffered the entire time of gestation with their kidneys. Probably this had some effect on the placenta thereby permitting the malarial parasites to pass into the blood stream of the infant.

1. Van Nitsen: Quatre Observations de paludisme congenital, *Bull. Med. du Katanga* **3**:83, 1934.

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FEBRUARY, 1937

EDITORIALS

ENDORSEMENT OF PROPAGANDA

In arranging programs for the component county societies of the Missouri State Medical Association it is fitting and proper that speakers outside the ranks of the component society be called upon. It is for this reason as well as for the purpose of extending postgraduate instruction throughout the state that the Association sponsors the local appearance of well-known physicians from the larger medical communities. It anticipates the opportunity of continuing this contribution to the county society program.

Indirectly it may be assumed that the negative acceptance of the services of the State Association imposes a positive obligation upon the local society in the choice of outside speakers. It is often generally assumed by the lay public that the views presented in an open meeting of any medical society represent the considered opinion of a responsible portion of the medical profession. In the case of reports of a scientific character this often leads to a regrettable influx of patients from distant points seeking the benefits of relatively untried and unproved methods, enthusiastically presented by their discoverers. In the case of discussions on matters of widespread social significance the appearance of an outside speaker together with his utterance is very likely to be assumed to represent the opinion of a large portion of the local profession.

That such conclusions may be drawn is unfortunate; as a matter of fact there may be nothing in the conduct of the meeting which might lead the careful reporter to the conclusion that approval had been given. All too often, however, an uncritical public, often urged on by lay proponents of a particular scheme to enlighten, reform or even defraud, read their own conclusions into the most critical account of the most discerning reporter.

At a recent meeting of one of the component societies of the Association a zealous proponent of a system of birth control delivered an address. There can be no question that he was sincere in the views he presented; there can be no question that it was the privilege of the members of the component society to seek enlightenment on the subject of birth control; but of the greatest importance to the community in which this society is situated and to the members themselves is the fact that there might arise a false inference based upon the appearance of this speaker in open meeting; namely, that in scheduling his address the society endorsed the activities and aims of the lay group he represented. Such cannot be the case. Unwittingly, we fear, this society in accepting the suggestion that they authorize a group of laymen to send them a speaker, indirectly permitted the assumption that they approved a method or scheme which is not endorsed by them, the Missouri State Medical Association or the American Medical Association.

Lest we be accused of provincialism in thus questioning the wisdom of a system of birth control let us present briefly a few pertinent facts based on statistical investigation, not the sentimental impressions of a group of poorly-informed but well-motivated enthusiasts. It is a matter of common knowledge that the birth rate of a hundred years ago was much higher than it is today. Ravaging epidemics which sometimes decimated a population in the course of a few weeks, unpredictable famines which wiped out the weaker citizens, prolonged wars with their ensuing debility, and other factors combined to make necessary a high birth rate that a vigorous society might be assured. But, "as mortality decreased, the need for large families to maintain the population at a healthy state of growth has diminished, and by a kind of automatic process, the people have adjusted themselves to this, the birth rate declining . . ."¹ The figures upon which Dublin and Lotka based this conclusion come from an era in American life before there was a general knowledge of effective contraceptive measures. Just as natural methods keep the ratio of females to males in the population constant, so natural methods combine to prevent a too rapid increase in population. Indeed, the same students believe that there will be only a slow increase in the population of this country to 154 millions of persons reached in 1990 with a slow decline thereafter. Surely the views of these eminent statisticians cannot be lightly disregarded. Whether, even now, the declining ratio between births and deaths can be taken as early evidence

1. Dublin, L. I., and Lotka, A. J.: Length of Life, New York, Ronald Press, 1936, p. 268.

of race suicide or racial degeneration is a question too complicated to engage us here.

Pearl has adduced evidence which might be interpreted to prove that the change from a rural to urban life, a conspicuous feature of the socio-economic progress of the last century has actually been accompanied by a decrease in male fertility. That there is danger inherent to this biologic change, the unpredictable result of socio-economic development is indicated in the conclusion of Lorimer and Osborne² that "the well-educated urban groups in American society have been characterized by a drift toward patterns of living which are incompatible with permanent family replacement." We do not presume in this short consideration of the subject to pass upon the merits of birth control; we offer neither an apology for, an endorsement nor a condemnation of the scheme. Yet we cannot be ignorant of the emotional sentimentality that too often draws support to such ill-conceived movements. That any medical society should even passively indicate its acceptance of the system of propaganda used by its advocates is unthinkable; such a course might react unpleasantly upon a public more than ever critical of every act of the regular profession.

Attention may properly be drawn to the report of the Committee of the American Medical Association to Study Contraceptive Practices and Related Problems.³ In that report mention is made of the findings of the Brookings Institute that "according to the fertility and mortality rates in western and northern Europe in 1926, 100 mothers gave birth to only 93 future mothers. With the fertility of 1926 the population is bound to die out unless mortality of potential mothers decreases beyond reasonable expectations." It is likewise significant that the studies of the authorities previously quoted support the conclusion of that Committee that there is "no evidence available to justify the broad claim that dissemination of contraceptive information will improve the economic status of the lower income groups. . . ." In a world of rapidly changing social, economic and political organization there are many tangible and intangible factors other than contraceptive practice that determine the birth rate and the course of racial destiny; in such a world it may be better to let natural methods determine that rate, or at least to await more conclusive statistical evidence before attempting to improve upon them.

It is not to be construed that there is no method by which the component societies may inform themselves upon subjects of social interest. Speakers to whose schemes they do not

wish to have it appear that they give approval may be invited to appear in executive session behind closed doors. But, even better, the county society might refuse the offers of self-seekers to appear before them without first securing the approval of the State Association. The real motive of those who offer to entertain or instruct them is not always apparent. It would be better to avoid embarrassment than to apologize for or explain away unwelcome implications. The facilities of the State Association are constantly at the disposal of the component societies; it is ready at all times to supply competent speakers who are qualified to present authoritative as well as informative discussions.

These remarks apply with equal force to persons who request the privilege of addressing the society on other topics. These persons come to the county society without recommendation, endorsement or approval of the proposed proposition from the State Medical Association or any of its executive officers. It would be the better part of wisdom for every county society to assure itself of the bona fides of every person who volunteers to address the society.

ARTERIOGRAPHY AND ARTERIAL OBSTRUCTION

Advancing age is usually accompanied by increasing degree of arterial obstruction. There may be early evidence of this senescent process such as patients complaining of pain on effort. The pain most commonly arises within the heart or in the legs. In some cases time or treatment sees the disappearance of functional evidence of disease. Yet, there are many patients in whom it is difficult to decide whether to treat the disease actively or with studied neglect. Recent investigations of the circulation in the extremities throw important light on this difficult problem.

An important part of the treatment of diabetes is concerned with the evaluation of the functional integrity of the arteries of the foot. It is generally recognized that in all instances of impaired circulation every effort should be made to protect the tissues from injury. It may be questioned whether or not active treatment should be instituted in those patients in whom the only evidence of disease is absence of pulsation in the pedal arteries. In the routine examination of older persons inspection of these arteries is often overlooked. If the patient complains of the symptoms variously classified under the terms Buerger's disease, intermittent claudication or arteriosclerosis obliterans unremitting efforts to improve the circulation are

2. Lorimer, F., and Osborne, F.: *Dynamics of Population*, New York, Macmillan, 1934, p. 327.

3. Report of Committee to Study Contraceptive Practices and Related Problems, J. A. M. A. **106**:1910, 1936.

begun. Postural exercises, the exhibition of increasing doses of foreign protein, notably typhoid vaccine, the intravenous injection of hypertonic saline, more recently passive vascular exercise; these seem among the better of the host of remedies employed.

Yet, there must always remain the question whether the rigid arteries resulting from senescence can be stretched by any therapeutic procedure. Such an assumption leaves out of all consideration the all important collateral arteries which enter little into normal activity.

Recent studies by Allen¹ and others have shown that there is a striking difference between the thorotrast injected arterial tree of the living and cadaverous leg. In the living only the main artery is likely to be demonstrated while in the dead the rich collateral network, including the muscular branches, is shown. It is assumed that could the arterial tree be shown during vigorous exercise these muscular branches would be filled by the contrast medium. Allen's extensive studies conclusively show a variety of mechanisms, all in accordance with sound physical laws of hydrostatics, available to the body to ensure continuity of an interrupted arterial circulation. Insofar as possible the body seems to circumvent obstruction with a new channel connecting with the old at a point below the block. The rarity of gangrene in the hand, though it is the site of arterial degeneration similar to that going on in the leg, is at least partially explained by the fact that it contains arteries having no counterpart in the leg. The interosseous arteries normally do not communicate with the palmar arch; yet in the presence of occlusive disease in the radial or ulnar artery the interosseous arteries extend until they unite with the arch. If one of the former vessels is blocked the other is prone to send out a collateral extension, below the point of block, to insure the functional integrity of the arterial pathway.

If the popliteal artery is blocked in the thigh there is a rich collateral circulation about the knee which may take over the task of getting blood past the obstruction if only the tissues are protected during the time necessary to permit this extension. Yater² presents an unusually instructive series of informative roentgenographic studies of the arteries of the extremities; these show well the length that may be attained by these collateral branches. Since these and other studies prove the assumption of years that collateral channels develop it becomes increasingly important to recognize the earliest

evidence of arterial insufficiency in the extremity, to institute in appropriate cases such therapeutic procedures as may be best calculated to increase blood flow through the affected area.

Inspection and palpation offer much aid in the determination of the functional integrity of the circulation in the extremities. Yet the absence of palpable pulsation does not invariably mean serious impairment. Thermometric study and oscillographic readings are available to the specialist. Arterial injection and roentgenography would seem to offer the general practitioner who would spend the time necessary to perfect himself in the use of the method a ready means of estimating the capacity of the vascular tree. Arteriography possesses the signal advantage of requiring no equipment not generally available.

Stabilized thorium dioxide solution has been used for many years in the study of the vascular system, the liver and spleen; only recently has it been finding laggard acceptance in this country. While the Council on Pharmacy and Chemistry of the American Medical Association has not yet given official approval to its use, thorotrast has been given to large series of patients without immediate or remote evidence of toxicity or radioactivation; thus in one series of 200 patients there have been no toxic effects five years after the injection of large amounts. Yater gives meticulous directions for its employment in the extremities; he finds the method especially useful in determining the site of amputation on account of gangrene. Regardless of individual employment of arteriography the facts brought out by these investigators justify long continued, conservative yet energetic, procedures for the purpose of inducing collateral circulation in the extremities of persons known to be suffering or likely to suffer from the effects of functional insufficiency arising from slowly progressive mechanical obstruction.

CANCER WORK IN MISSOURI

A timely and stimulating discussion of the cancer problem as it affects Missouri is presented in a letter from Mr. W. Ed. Jameson, President of the Board of Managers of the State Eleemosynary Institutions, and published on another page in this issue of *THE JOURNAL*. In view of that part of Governor Stark's inaugural address which dealt with the establishment of cancer clinics, Mr. Jameson's letter should make interesting reading material for all of our members.

It will be noted that the Eleemosynary Board through the enthusiasm, interest and efficiency of its president, has taken the initiative in providing a certain amount of care for the indigent

1. Allen, E. V.: How Arteries Compensate for Occlusion, *Arch. Int. Med.* 57:601, 1936.

2. Yater, W. M.: Thorotrast Arteriography of the Extremities with Report of Illustrative and Unusual Cases, *Am. Heart J.* 12:383, 1936.

cancer sufferer in Missouri. What is perhaps of greater interest and importance to our members is that the operation of the tumor clinic has been carried on with the full cooperation of the Committee on Cancer. In return for this cooperation, the Committee on Cancer of the State Medical Association has given generously of its time and has been most conscientious in its fulfillment of the responsibility placed upon its personnel to see that the cancer sufferer received the best consideration and the most help to be obtained from the facilities provided at the Fulton State Hospital. As shown in Mr. Jameson's letter, this care will soon be extended to more patients and facilities available will be much improved. It has been the desire of the Committee on Cancer to see that such development did not take place too rapidly in order that the personnel might be adequately trained for the proper care of the cancer patient.

NATIONAL SOCIAL HYGIENE DAY

An arresting editorial beginning in large type "The great friend of syphilis" appeared in the January 2 issue of *The Nation*. One immediately read on to find what friend syphilis could possibly have and found "The great friend of syphilis and the worst obstacle in the way of its elimination is the taboo under which the subject has been buried."

THE JOURNAL of the Missouri State Medical Association recently presented in an editorial the changing attitude toward this great public health problem. This was in connection with the Social Hygiene Week which was held in St. Louis November 1 to 7 and had as its object the general enlistment of the community in facing its local problem and cooperating with the United States Public Health Service in stamping out this prevalent infectious disease.

The imagination of the nation has been stirred and a concerted effort to focus national attention on this and other phases of the social hygiene program is being made by the celebration of February 3 as National Social Hygiene Day. In nearly every state large cities, smaller communities and special groups are planning to hold conferences or meetings on that day. The United States Public Health Service and health authorities throughout the country are showing great interest and offering to help in every possible way. The medical profession, nursing organizations, social workers, parent teacher associations, churches and widely diversified clubs have signified their desire to cooperate.

In Missouri the Missouri Social Hygiene Association in St. Louis and the Kansas City Hygiene Society will take part in the observ-

ance of this day. In St. Louis, the Missouri Social Hygiene Association is planning to have all the radio health programs which are near February 3, sponsored by various organizations, devoted to some aspect of social hygiene. It is requesting all the schools and colleges in the vicinity to announce the purpose of the day and to give what time they can to presenting the problem. It is also seeking a short time on the program of every club which meets on February 3.

The first meeting of the newly formed Woman's Social Hygiene Civic Committee will meet on that day and the Rev. Laurance R. Plank, of the Church of the Unity, will speak on "Men and Women in the Modern World," and Dr. Richard S. Weiss, St. Louis, newly elected president of the Association, will give a brief report of the recent conference which he attended in Washington, D. C., on "Venereal Disease Control."

The regular meeting of the St. Louis Medical Society on February 2 will be devoted to various aspects of the venereal disease problem as a part of the observance of National Social Hygiene Day.

NEWS NOTES

The Trudeau Club of St. Louis held its January meeting in the St. Louis Medical Society Building, January 7, at 8:30 p. m. Dr. J. J. Bronfenbrenner, St. Louis, spoke on "Immunology in Tuberculosis."

Dr. Horace W. Soper, St. Louis, addressed the National Society for the Advancement of Gastro-Enterology at the New York Academy of Medicine, December 22, 1936. His subject was "The Treatment of Ulcerative Colitis."

Dr. E. F. Yancey, Sedalia, has resigned as medical director of the Missouri, Kansas and Texas Railroad Company. Dr. Yancey has been with the company for fifty-two years and is 78 years old. He has practiced in Sedalia since 1885.

Dr. J. Curtis Lyter, St. Louis, was the guest of the Denver (Colorado) Medical Society on December 14 and delivered an address on "Angina Pectoris of Effort and Its Associated Phenomena." On December 15 Dr. Lyter spoke before the Boulder County Medical Society at Longmont, Colorado, and on December 16, before the Colorado Springs Medical Society.

At a recent meeting of the St. Louis Surgical Society the following officers were elected: President, Dr. Walter C. G. Kirchner; secretary, Dr. Nathan A. Womack; treasurer, Dr. Malvern C. Clopton; member of the council, Dr. Robert E. Schlueter.

Dr. Edwin H. Schorer, Health Director of Kansas City, has urged precautionary steps against smallpox spreading to Kansas City from St. Joseph and several communities in Kansas where the disease has been reported. The Jackson County Medical Society is assisting in promoting precautionary measures. So far this year there has been no case of smallpox reported in Kansas City; last year there were seven cases.

Dr. Edward D. Churchill, Boston, Professor of Surgery, Harvard University School of Medicine, presented the Annual Hodgen Lecture at the St. Louis Medical Society Building, January 12. His subject was "Surgery of the Parathyroids." The Hodgen Lecture is presented each year under the auspices of the St. Louis Surgical Society and the Medical Fund Society in memory of the late Dr. John T. Hodgen.

Dr. Alphonse McMahon, St. Louis, has been appointed a member of the council of the Southern Medical Association from Missouri for a regular council term of five years, the appointment having been announced recently by the president, Dr. Frank K. Boland, Atlanta, Georgia. Dr. McMahon succeeds Dr. M. Pinson Neal, Columbia, who, having served the constitutional limit, was not eligible for reappointment.

The Missouri Social Hygiene Association held its annual meeting January 7, 1937, at the library of the Moses Schoenberg Memorial Nurses Residence, St. Louis. The following officers were elected: Honorary president, Rev. George R. Dodson; president, Dr. Richard S. Weiss; honorary vice president, Dr. Martin F. Engman; first vice president, Dr. Paul J. Zentay; second vice president, Dr. F. H. Ewerhardt; third vice president, Rev. Ivan Lee Holt; fourth vice president, Mr. John W. Calhoun; secretary-treasurer, Dr. A. H. Conrad. New board members elected are Mr. Kenneth Teasdale, Dr. Benjamin F. May, Mrs. George A. Hope, Dr. G. O. Broun, Mr. Milton A. Hellman, Mr. George Simmons, Mr. Thomas Quinn and Miss Edith Baker.

The University of Louisville Medical School which is the second oldest medical school now in existence west of the Allegheny Mountains and the oldest municipal medical college in this country will celebrate its centennial March 31 to April 3, 1937, at Louisville, Kentucky. The celebration will include a clinical program by outstanding guest speakers, ward rounds daily at the hospital, lectures in the forenoon and afternoon, numerous scientific exhibits in the various departments of the university and interesting entertainment for alumni and wives of alumni in attendance.

Dr. Harry W. Woodruff, Jr., St. Louis, eye specialist at the St. Louis City Hospital, disappeared on December 29. He is 28 years old; 5 feet, 10½ inches in height; weighs from 155 to 160 pounds; is of medium dark complexion; has small bald spot on right side of head above hair line. When last seen he was wearing a dark suit, tan or grey topcoat, black shoes. Any information should be transmitted to Dr. Harry W. Woodruff, Sr., Joliet, Illinois, father of Dr. Woodruff, or the St. Louis Police Department. The St. Louis Police Department has announced a reward of \$250 for information leading to his whereabouts.

A memorial service was held for the late Dr. W. McKim Marriott, former dean of Washington University School of Medicine, at the Washington University Auditorium on January 3. Dr. Marriott died on November 11 in San Francisco where he had gone July 1, 1936, to become dean of the Medical School and director of Medical Research at the University of California. Tribute was paid to Dr. Marriott by Chancellor George R. Throop, St. Louis; Dr. Edwards A. Park, Johns Hopkins University; Dr. Philip A. Shaffer, St. Louis, and Dr. Alexis F. Hartman, St. Louis. The service was concluded by the reading of resolutions adopted by the faculties of the medical and dental schools and the board of directors of the school.

The *Bulletin* of the American Medical Association for January 9, announces that the Richmond (Virginia) Academy of Medicine has established the Richmond Medical Service Bureau, Inc. It will be operated with a group hospitalization plan adopted in 1935. The bureau will collect monthly payments on bills for medical services and remit to the physician or if the physician wishes will investigate patients to determine the maximum amount the patient is able to pay. The bureau is under the control of five mem-

bers of the Academy to be elected annually. Initial expense of the bureau is to be met by a loan from the Academy of \$1500 and operating costs will then be met by a deduction of 10 per cent from collected accounts.

An Advisory Committee to the Committee on Cancer was established at the Columbia Session of the Association, the Committee to assist the Committee on Cancer to keep in closer touch with all districts of the state. The following men, recommended by the Committee on Cancer and approved by the Council, were appointed and have accepted appointments on the Advisory Committee: Drs. D. K. Rose, Wm. H. Vogt, Q. U. Newell and Ross A. Woolsey, St. Louis; M. Pinson Neal, F. G. Nifong and D. S. Conley, Columbia; Ralf Hanks and T. S. Lapp, Fulton; S. V. Bedford, Jefferson City; Robert Koritschoner, E. Kip Robinson and David S. Dann, Kansas City; Wallis Smith and H. A. Lowe, Springfield; C. A. W. Zimmermann, Cape Girardeau; J. S. Gashwiler, Novinger; E. A. Oliver, Richland; F. L. Martin, Nevada; A. M. Gregg, Joplin; H. J. Ravold and Floyd Spencer, St. Joseph.

The Medical-Dental Service Bureau, St. Louis, will have \$300 available to it monthly up to \$900 under a resolution adopted by the three societies participating in the plan, the St. Louis Medical Society, the St. Louis County Medical Society and the St. Louis Dental Society. The money will be appropriated when and if needed by the Bureau. The resolution follows:

Resolved:

1. In order to further extend the very comprehensive services of the Medical-Dental Service Bureau in accomplishing its objective of providing good medical, dental and hospital care to the people of this community, and in order to make available to them such care in a manner that is compatible with their ability to pay; and further

2. To act in concert with the St. Louis County Medical Society and St. Louis Dental Society in making possible the continuance of the Bureau's activities, the St. Louis Medical Society advance, additionally and finally, out of general funds available, \$300 monthly when and if needed for a period of three months but not to exceed \$900.

The following members have accepted invitations of the Postgraduate Committee and the Cancer Committee of the State Association to deliver addresses at meetings of component county medical societies and lay meetings.

Drs. C. H. Neilson and John J. Hammond, St. Louis, were guests of the Phelps-Crawford County Medical Society at Rolla on January 11.

Dr. Neilson spoke on "Treatment of Functional Diseases" and Dr. Hammond talked on "Treatment of Cardiac Diseases."

Dr. T. S. Lapp, Fulton, was to speak on "Cancer" to a lay audience in Novinger as the guest of the Adair-Schuyler-Knox-Sullivan County Medical Society on December 12. Dr. Lapp drove to Novinger to deliver his lecture but inclement weather prevented the meeting.

The Lawrence-Stone and Barry county medical societies had as their guests on January 26 at Monett Drs. Kip Robinson and F. I. Wilson, Kansas City, who spoke before physicians and a lay audience. Dr. Robinson discussed "Recent Advances in Radium Treatment of Cancer" and Dr. Wilson spoke on "Recent Advances in Surgical Treatment of Cancer."

On February 2 Drs. E. C. Ernst and Warren R. Rainey, St. Louis, will be guests of the St. Charles County Medical Society and deliver addresses on "Roentgen Ray Aid in the Diagnosis and Treatment of Diseases of the Colon," and "Cancer of the Rectum," respectively.

The Laclede County Medical Society will have as its guests on February 1 at Lebanon Drs. Edwin C. Schmitke and Sim F. Beam, St. Louis. Dr. Schmitke will discuss "Cancer of the Rectum" and Dr. Beam will talk on "Pneumonia."

Dr. Robert Glynn, Springfield, and Dr. O. F. Bradford, Columbia, will be guests of the South Central Counties Medical Society on February 5 and address both a lay audience and a scientific audience. Dr. Glynn will speak on "Cancer of the Rectum" and Dr. Bradford will talk on "Immunization."

MISCELLANY

COMMITTEE ON MATERNAL WELFARE

Aspiration of Mucus

QUESTION.—Can aspiration of mucus at the time of delivery be prevented?

ANSWER.—In the majority of cases, fetal asphyxia due to aspiration can be prevented at the time of delivery.

Perhaps the most common cause of asphyxia livida encountered at the time of delivery is the fact that the child takes its first breath before the air passages are clear. When this happens, any or all of the contents of the mouth and upper air passages may be aspirated into the trachea, bronchi or bronchioles. This is particularly true when the position of the child is such that aspiration is aided or facilitated by the force of gravity.

It is true that occasionally the initial gasp occurs before the head is delivered, particularly in breech presentations. In this case it may be very difficult to prevent

Comments and questions by members are solicited and will be discussed by members of the Committee on Maternal Welfare.

the aspiration of mucus, amniotic fluid, blood, etc., that may be present in the birth canal and also the mouth of the infant when it takes its first breath. However, the percentage of cases in which this occurs is very small since, in the majority of cases, such aspiration does not occur until after the child is delivered because most of them do not begin to breathe until after delivery. We are concerned here with a means of preventing that type of aspiration which is encountered almost every day in the practice of obstetrics because the child begins to breathe before the air passages are clear, usually about the time it is being held up in a sitting posture or with the head elevated so that gravity has a definite tendency to accentuate or facilitate the aspiration of any or all of the contents of the mouth and upper respiratory tract. Hence we feel that the position of the child when it takes its first breath is definitely a factor necessitating the frequent use of the tracheal catheter in order to clear the air passages before spontaneous respiration is established. We feel that many neonatal complications could be avoided if the tracheal catheter were used more often and by a larger number of men. We believe that if the position of the child immediately after delivery is carefully watched the number of times a tracheal catheter is needed would be reduced to a minimum; and then its use would be necessary only in the more complicated types of asphyxia neonatorum. We have found from experience that if particular attention is paid to the relative positions of the head and body of the infant immediately after delivery, by keeping the head in a dependent position until after the air passages have been cleared, the possibility of the child aspirating anything is almost nil.

Hence we have developed a technic that is surprisingly simple and applicable to any type of delivery whereby the head is allowed to remain in a dependent position until after the mouth and upper respiratory tract have been thoroughly cleared. It may be outlined briefly as follows: After the head is born the occiput rotates toward the side on which the back lies until external restitution and external rotation have taken place. Then the head is grasped by placing a hand over each temporal region and ear, after which the head is directed downward and backward in order to facilitate the delivery of the anterior shoulder under the symphysis. If the anterior shoulder is not situated behind the symphysis at this stage it may be gently rotated to this position after inserting one finger into the vagina with which to bring the shoulder girdle into the anteroposterior diameter of the pelvic outlet so that the anterior shoulder may be delivered under the symphysis. Very gentle traction may be applied to the head in a downward and backward direction to facilitate delivery of the anterior shoulder under the symphysis, but it should never assume the proportions of a "pull." When the anterior shoulder makes its appearance in the vulva it has passed beneath the pubic arch. Then the head is directed upward and forward in order to facilitate delivery of the posterior shoulder over the perineum. When this has been completed the shoulders have been delivered and unless particular care is used the body of the child is delivered by carrying the head upward and forward in the direction it has moved during delivery of the posterior shoulder. In most cases the head is in an uppermost position instead of being dependent or in a lowermost position because the natural sequence of the maneuver is in the upward and forward direction.

We have modified this technic so that as soon as the posterior shoulder is delivered over the perineum the

head is again directed downward and backward and continued in this direction until the feet come through the vulva. Then they are grasped and the child held up by the feet until the air passages are cleared. This is done by placing the head and body of the child against the abdomen of the operator while still holding it up by the feet with one hand and then "milking out" the trachea with the thumb of the other hand while at the same time the contents of the nose are expressed with the first finger of the same hand. The head is carried against the abdomen so that the pressure may be applied with the thumb and first finger in clearing out the air passages and throat while at the same time the head is being held stationary against the abdomen. In this way the effectiveness with which the passages may be cleared is very definitely enhanced. When necessary the gloved finger is placed in the mouth to clean it, but this is rarely necessary if the above procedure is carried out. However, under no circumstances do we use a layer of gauze over this finger because its additional effectiveness does not begin to compensate for the damage it does to the delicate epithelial covering of the mucous membrane in the mouth and oral pharynx and it is a well known fact that injury to this epithelium predisposes to the development of thrush and other mouth complications encountered in the new-born.

The child is held in this position until respirations are established or at least until we are sure that the air passages are clear.

It has been found after following this procedure in a large number of consecutive cases that the use of the tracheal catheter is "almost a thing of the past" and that asphyxia neonatorum resulting from the aspiration of mucus, amniotic fluid, blood, etc., can be effectively prevented.

EXTENSION OF MEDICAL SERVICE TO THE INDIGENT

In view of the many experiments on medical care of the indigent and the low income group being carried on throughout the country the House of Delegates of the American Medical Association has established principles for guidance of the medical profession in these matters and the Board of Trustees at a recent meeting supplemented them. These principles with comments were published in the *Journal of the American Medical Association* of January 19, 1937, and is reprinted here for members who did not see it.

For at least a quarter of a century the medical profession has been giving special consideration to the scientific, economic and social problems of providing medical care for all the people of a standard at least as good as that which now prevails. The House of Delegates of the Association has established definite principles to guide the medical profession in these matters. The fundamental points set forth in the policies established by the American Medical Association have been determined primarily with a view to conserving for medicine in the changing times those principles which are fundamental to the advancement of medical science and the best quality of medical service. Throughout the United States today hundreds of experiments in new forms of medical practice are being conducted—many of them under the auspices of organized medicine—with a view to meeting the needs that the changes in our civilization have made evident. Recognizing the situation that has developed the Board of Trustees at a special session held in Chicago last week adopted the following resolution as a still further evidence of the willingness of organized medicine to do its utmost to meet these problems:

"In the past, the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and medical service. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor competent financially find themselves under some circumstances unable to

meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part. Members of the medical profession, locally and in the various states, are ready and willing to consider with other agencies ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service and not able to meet the full cost thereof. These are problems for local and state consideration primarily rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situation."

COLLECTING MEDICAL FEES

A collection agency located in Ohio is soliciting accounts for collection from physicians and dentists in Missouri. One clause in the contract is sufficient to place the physician on his guard. This clause entitles the company to 30 per cent of the listed amounts on accounts totaling less than \$1000 and 25 per cent commission on accounts totaling more than \$1000. In other words if accounts totaling \$500 are listed with this agency the concern under the contract deducts \$150 commission from collections before any amount is due the physician.

Of collection agencies Dr. R. G. Leland, Director, Bureau of Medical Economics, American Medical Association, wrote in the *American Medical Association Bulletin*, April, 1932, the following:

Classification of Agencies

There are several ways in which collection agencies may be classified. The most general classification is (1) "nation-wide" and (2) "local agencies." It is a good general rule to beware of the "nation-wide" type, but like all generalities this has some exceptions. Not all "nation-wide" agencies are "gyps" but many of the "gyps" are "nation-wide." The crooked agency needs the whole nation in which to work, because it cannot soon work the same territory a second time. Moreover, it usually employs high pressure salesmen, who work fast and cover a lot of territory. Therefore, when approached by a salesman from such a "nation-wide" agency, the physician should investigate carefully before giving him any accounts.

Contract Agencies

Another classification, which sometimes overlaps the one just mentioned, is (1) the "contract" and (2) "no contract" agencies. The local agency often does not have a contract, although there are exceptions. The "nation-wide" agency almost always has a contract, and if it does, this doubles the need for wariness on the part of the physician. The best class of agencies almost never use contracts, and often make it a point of business ethics not to have one, except upon the request of the client. The *Commercial Law Journal* for July, 1931, says: "Remember that a legitimate collection agency seldom has a contract." The *Bulletin of the Retailers Collection Service, Inc.*, St. Louis, Mo., July, 1931, says: "The legitimate collection agency seldom asks you to sign a contract, and few reliable ones have one either."

In a questionnaire sent to collection agencies by the American Medical Association there was included a request for copies of their contracts. The best established and the old reliable institutions almost invariably replied, "we have no contract," and some manifestly resented the question as implying unethical practices.

Contracts never offer protection to the physician and the honest agency needs no contract to protect itself. Agencies using a contract claim that it is necessary to prevent the withdrawal of accounts on which work has been done. If the work done by the agency is of a nature which the client approves and which he understood would be done when he turned over his accounts, he will not withdraw them. If circumstances should arise in the physician's relations with his patients which make it advisable to withdraw accounts, any honest agency will be glad to grant the physician's request. On the other hand, withdrawal is the only effective check on disreputable collection methods. But, if the agency has really done any work on an account which is withdrawn, it has a legal claim which can be enforced for the payment for such services. To enforce such a claim, however, the agency must prove that the work was done, and this is something which agencies working on tricky contracts may find difficult to prove.

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are here reprinted that the members throughout the state may have the opportunity of reading them.

A Scheme of Treatment for Early Syphilis (Modified After Moore)

Day or Week	Arsphenamine	Neo-arsphenamine	Interim Treatment	Blood Wassermann & Kahn
Day 1	0.3-0.6gm	0.45-0.6gm	{ Bismuth 0.2gm simultaneously with first 4 doses of arsphenamine	1 ¹
5	0.3-0.6gm	0.45-0.6gm		
10	0.3-0.6gm	0.45-0.6gm		
Week 3-7	0.4gm (1 dose each week)	0.6gm ch week)	{ Bismuth, 4 doses 0.2 gm., and K. I., or Ung. Hg and K. I.	1 ²
8-11	.....	.....
12-17	0.4gm (1 dose each week)	0.6gm ch week)	.....	.....³
18-23	.....	.....	{ Bismuth, 6 doses, or Ung. Hg and K. I.	1 ⁴
24-29	0.4gm (1 dose each week)	0.6gm ch week)	{ Bismuth, 8 doses, or Ung. Hg and K. I.	1 ⁵
30-37	.....	.....
38-43	0.4gm (1 dose each week)	0.6gm ch week)	.....	.....
44-53	.....	.....	{ Bismuth, 10 doses or Ung. Hg and K. I.	1 ⁶
54-59	0.4gm (1 dose each week)	0.6gm ch week)	{ Bismuth, 10 doses, or Ung. Hg and K. I.	1 ⁷
60-69	.....	.....
70-122 *123	Probation		No treatment	6-12 ⁸

NOTE: No schedule can be followed as an absolute routine, treatment is an art in which the physician must consider the individual patient.

* Complete physical and neurologic examination, spinal puncture and if possible, fluoroscopic examination of cardiovascular system. Thereafter, yearly physical examinations, blood Wassermann and Kahn every 6 to 12 months. If the two spinal fluid examinations above are negative, this need not be repeated.

REMARKS

1. Arsphenamine dosage for first three injections at level of 0.1gm for each 25 pounds body weight. Average subsequent dosage, 0.4gm, men; 0.3gm, women. In average patient all lesions heal rapidly and blood Wassermann reaction becomes negative during first course. If arsphenamine cannot be used, substitute ten to twelve doses 0.45 to 0.6gm, neoarsphenamine. This applies also to subsequent courses.

Mercury inunctions may be substituted for bismuth if patient's finances or occupation (traveling salesman, etc.) demand it.

2. If mercury is used, note overlap of one week at end of first and start of second arsphenamine courses. No overlaps necessary with bismuth. At this point a few days without treatment may be dangerous. Neuro-recurrence.

3. Arsphenamine starts, bismuth stops. Watch for provocative Wassermann reaction after first dose of arsphenamine. Try to prevent short lapses in treatment, especially at this early stage.

4. Bismuth is better than mercury. Use it if possible. Examine cerebrospinal fluid routinely at about this time.

5. The average seropositive primary or early secondary patient should have at least five courses of arsphenamine.

6. Patients with seronegative primary syphilis may cease treatment here, if blood Wassermann reaction has always been negative. Note that bismuth or mercury courses are gradually getting longer—four, six, eight and now ten weeks.

7. It is safer to finish treatment with bismuth or mercury rather than with arsphenamine.

8. Blood Wassermann every month if possible; at least every other month.

The Epidemiology of Syphilis

Under this heading must be considered firstly, the factors which have to do with the transmission of syphilis and, secondly, the means available for preventing its being conveyed to others.

The United States Public Health Service estimates that there were 518,000 new cases of syphilis in this country in 1934, and these new cases added to the older ones certainly make it a widely prevalent disease. History shows that syphilis at one time spread as a devastating epidemic, seriously affecting large populations by marked external and clinical manifestations. It now makes a more insidious attack by means of small epidemics.

Two practical methods are at hand for discovering syphilitic patients, i. e., the making of serologic surveys of population groups and the tracing of source cases and contacts.

The Making of Serologic Surveys of Population Groups

If the entire population through one generation should be repeatedly examined clinically and serologically for syphilis and every infected person promptly given the minimum standard of modern therapy, the disease could be eradicated. Since such action is impossible the approach must necessarily be slower, but the present day pace can and should be accelerated. Certain groups are now receiving routine examinations and many unsuspected cases are being discovered. A few years ago the United States Public Health Service attempted to capitalize in a wholesale manner on the fact that antisyphilitic treatment will render patients noninfectious. In selected areas it attempted mass sterilization of the Negro population based on extensive serologic surveys. The results and experiences were such that this method of attack can be recommended. This method of detection should become more widespread until eventually the entire population is covered.

The Tracing of Source Cases and Contacts

Another way of attacking this transmissible infection is by tracing source cases and by following up contacts of syphilitic patients. This is a direct epidemiologic procedure and if pursued intensively and tactfully is effective. The principle of approach is identical with that used in the control of other infectious diseases. Because of the tendency to secrecy the problem is somewhat difficult, but on the other hand the number of possible sources and contacts is limited, a fact which simplifies the investigation.

It has been the policy at the University of Virginia Hospital for several years to investigate epidemiologically all early and familial cases of syphilis and any other cases that would seem to warrant scrutiny. This investigation is directed toward ascertaining the identity of the person from whom the patient acquired the disease and the identity of other persons exposed to the same source or to the patient following infection.

The cooperation of the patient must be won by explaining to him the fundamental characteristics of the disease and impressing upon him the fact that all information obtained is confidential. With this proper approach almost every patient will give the names and addresses of the persons concerned in this investigation. He is asked to notify them and to advise them to be examined, and in addition a letter is sent from the hospital to each contact advising examination. The remarkable fact is that almost all patients attempt to cooperate fully when tactfully approached.

The following is a concrete example of the methods of tracing sources and contacts. A patient with chancre came to the hospital for treatment. He was employed in a small industrial plant employing young men and women, thirty miles away. The follow-up was entirely by messages of patients and correspondence. Fifty-seven names of exposed persons were obtained; twenty-four were examined, of whom fifteen were found to have acquired syphilis.

The detection of syphilitic individuals is the first step in the control of the disease and this can be accomplished only through the patience, tact and energy of the physician. (Adopted from Dudley C. Smith.)

OBITUARY

ROSS A. MITCHELL, M.D.

Dr. R. A. Mitchell, Moberly, a graduate of the University Medical College of Kansas City, 1905, died December 8, 1936, at the McCormick Hospital, Moberly, after being ill for six weeks. He was 55 years old.

Dr. Mitchell was born near Springfield, Illinois. After completing his medical studies he practiced in Pennsylvania, then in Clark, Missouri, and moved to Moberly in 1915.

Dr. Mitchell was a loyal member of the Randolph-Monroe County Medical Society and had served as its president.

Surviving are his widow, his mother, one sister and a nephew.

WILLIAM WINSTON WAGGONER, M.D.

Dr. W. W. Waggoner, Webb City, a graduate of the Cincinnati College of Medicine and Surgery, 1892, died at his home December 15, 1936, aged 74 years. Dr. Waggoner had been in ill health for the last six years following a stroke of paralysis in 1930.

Dr. Waggoner was a native of Indiana. After his medical studies at the Cincinnati College of Medicine he took postgraduate work in the University of Heidelberg in Germany. He returned to Cincinnati to begin practice. He remained in Cincinnati for four years, then practiced in St. Louis three years after which he went to Webb City where he remained in practice until ill health made practice impossible.

Dr. Waggoner was elected an honor member of the Jasper County Medical Society in 1932.

Surviving are a daughter, two sons and a half-brother.

HENRY ROBERTSON CONWAY, M.D.

Dr. H. R. Conway, Marshall, a graduate of the University Medical College of Kansas City, 1912, died December 14, 1936, at the Fitzgibbon Hospital, Marshall, of myocarditis with decompensation, aged 51 years. He had been suffering from a heart ailment for three years.

Dr. Conway was born in Marshall and received his early education there. After completing his medical education he was associated for a time with the late Dr. Jabez Jackson, Kansas City. He practiced in St. Francis and Bird City, Kansas, and in Norborne and Bosworth, Missouri. He located in Marshall in 1924 and had won for himself the esteem and respect of many friends and his colleagues.

He had served the Saline County Medical Society as secretary-treasurer and as president.

Surviving are his widow, three daughters, one son and five sisters.

Books for Leisure Moments

A vague uneasiness, a feeling of discomfort, distress or pain, these are the clarion symptoms that send the patient to the physician. It is these for which he seeks relief. He is not interested in the more intimate pathology of his complaint; he is interested in securing for himself freedom from the annoying or torturing feeling that has brought him to the doctor. Most books directed to the physician present an orderly sequence of the causes of pain, and secondarily, mention the methods by which relief may be effected. Dr. Harold Balme has written "Relief of Pain" (P. Blakiston's Son & Co., Inc., Philadelphia) for the express purpose of showing the manner in which the distressing symptoms which have caused the patient to seek relief may be allayed.

The book is divided into four parts. The first is called the problem of pain. Here the psychogenic, somatic and visceral aspect of the condition are discussed together with a classification of painful sensations and the method of investigation which is to be followed to determine the mode of relief. The second section of the book treats of the general and systemic manifestations of pain from the etiologic point of view; here the importance of exact diagnosis is stressed as a means of avoiding recurrence of pain by eradication of the causal factors. The third section of the book is devoted to an exact presentation of every type of pain which may occur in each of the many anatomical regions of the body together with specific recommendations for the relief of that pain. For example, the pain of an acute carious tooth may be alleviated by syringing out all food debris with warm water, wiping the part with a mixture of pure phenol and chloroform, then packing with a pledget saturated in equal parts of carbolic acid, menthol and oil of cloves; appropriate analgesics are advised and in this way the patient may be afforded a modicum of comfort until the dentist can be consulted. In this section, too, methods of relieving the pains of childbirth are advised.

The fourth and last section of the book is devoted to a consideration of the therapeutics of analgesia. It seems strange that it was not until 1860-1862 when John Hilton delivered his classical series of lectures on "The Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases and the Diagnostic Value of Pain" before the Royal College of Surgeons that the importance of rest and support in the mitigation of pain was realized. Yet such is the implication which the author makes in regard to this natural method of treatment. The exact details of securing immobilization are pointed out; for example, in the case of a painful spine it is not enough to put the patient to bed; he must be completely recumbent and in such a position that there is hyperextension of the vertebral muscles. The modes of application of baths and packs, massage and electricity are discussed. And finally, there is a short chapter in which the various analgesic drugs are presented together with their average doses and the conditions in which they are most likely to prove valuable.

The reader may be somewhat startled to note in several places Balme's recommendation to use two widely advertised proprietary preparations not approved by the Council on Pharmacy of the American Medical Association. Heroin, which is no longer available in this country, is frequently advised for its analgesic properties. But, after all, the fact that Sir E. Farquhar Buzzard, Regius Professor of Medicine in the University of Oxford, has written the introduction

to the book serves more to vouchsafe for its accuracy and reliability than these minor differences of opinion as to therapeutic effectiveness. All in all the volume is timely, interesting and eminently useful to the physician who seeks above all to relieve pain, even while he searches for its exact etiology.

There is no end of truth to the accusation often leveled at medical schools that they teach too much of diagnosis, too little of treatment; that after all, the patient is less interested in the uninformative, often unintelligible name by which his illness is called than in getting well. But, of course, the persons who make such an accusation forget that the average patient (at least 90 per cent of them) will get well if he is only skillfully neglected by his friends and his physician. Hence those pedagogs who insist that it is more important for the medical student to be perfectly acquainted with the life history and clinical manifestations of *Fasciolopsis Buskii* than it is for him to know how to treat psorospermiasis may have planned the curriculum with considerable forethought and the best interest of the patient at heart.

Nevertheless, the accusation remains and from time to time something must be done about it. Unfortunately, modes of treatment change almost as quickly as medical students graduate while diagnostic methods remain essentially unaltered for at least a decade. Which leads to the conclusion that the physician who would write a treatise devoted solely to "The Art of Treatment" by Dr. W. R. Houston (The Macmillan Company, New York) has no small task on his hands. He must satisfy the pedagogs by being up to date, the patient by recommending pleasant tasting drugs, and the individual physician by supplying a book that is likely to be read. On the whole, the author has succeeded fairly well in satisfying the first prerequisite; the patient is likely to be satisfied because of a laudable conservatism which emphasizes the restoration of disordered physiological mechanisms rather than the prescription of outmoded concoctions; but the physician may not read the book as thoroughly as the underlying sound philosophy and sane outlook of Dr. Houston would seem to justify.

The book is too long. There is too much discussion of nonessentials. While the index is excellent too many words intrude themselves upon the consciousness of the physician intent in his search for the cure of an individual patient. Yet the author only indulges himself in a common medical failing, the inability to know when to stop and the desire to import more wisdom that might be desired by the reader.

To the physician who will spend the required reading time, probably in small, oft-repeated doses, the volume will prove useful. The conservatism with which the writer approaches his subject cannot help but do good in the relief of human suffering.

Sickness is a favorite topic of conversation among ocean travelers; like the weather, it is sure to bring a response from anyone who has had the least contact with the sea. Those who still remain unspoiled by the tang of salt air look wistfully toward a future ocean voyage. Dr. J. F. Montague has written entertainingly for those who contemplate their first or their thirty-first sea trip. He calls it "Why Bring That Up" (The Home Health Library, New York).

After proving that seasickness is not a purely psychic phenomenon he goes on to prove that it contains a large psychic element, which nevertheless, is not amenable to

the will. Even veteran sea captains sometimes get seasick. He believes that the static position of the individual in an environment constantly in motion brings such conflicting impressions to the sensorium that the body in fear of its existence seeks to empty the stomach as the first line of defense. To avoid the burden of this discomfort he advises unhurried preparation, a light diet, avoidance of alcohol; to treat it, sodium pentobarbital, sodium nitrite, a belladonna plaster to the stomach and colonic lavage. In lieu of the last a good old fashioned enema of cool salt water. There is much common sense in the book and it may safely be recommended to patients who contemplate a visit to Neptune's kingdom. The reviewer will want to look up this volume again when he is in a position to realize that nostalgic yearning for a sea trip.

TREATMENT OF LARGE PULMONARY ABSCESSSES

According to Clarence E. Bird, Louisville, Ky (Journal A. M. A., Oct. 17, 1936), emphasis is placed on long continued, dependent drainage, under hospital care, until the cavity of the abscess is entirely obliterated. Fibrosis, bronchiectasis, chronicity and recurrences are thus avoided. During these periods of hospitalization it is interesting and instructive to observe the healing cavities repeatedly through an ordinary fore-oblique cystoscope passed through the wound of operation. For most cases the ideal sites of drainage for large abscesses are, for the right upper lobe, the third or fourth rib in the midclavicular line; for the middle lobe, the fifth or sixth rib lateral to the costochondral junction; for the left upper lobe, the third rib in the midclavicular line lateral to the pericardium, with removal of lower ribs under direct guidance of the finger if necessary; for the lower lobes posteriorly and laterally, the tenth and eleventh ribs over the paravertebral gutter, or the tenth rib below the angle of the scapula or the ninth rib in the midaxillary line; for the left lower lobe anteriorly, the eighth rib in the anterior axillary line or the seventh and sixth ribs in the midclavicular line; for the right lower lobe anteriorly, the eighth rib in the anterior axillary line. There are individual and age variations, and elevation of the diaphragm due to atelectasis and fibrosis must be taken into consideration when the site of drainage for chronic abscesses is chosen. Among twenty-one patients with pulmonary abscess treated surgically during the past four years, ten are well, five are improved and six are dead. This mortality rate of 28.6 per cent should be improved.

LEUKEMIA OF STOMACH PRODUCING HYPERTROPHY OF GASTRIC MUCOSA

Leo G. Rigler, Minneapolis (Journal A. M. A., Dec. 19, 1936), declares that leukemic infiltration of the stomach may produce a striking picture of enormously enlarged gastric rugae resembling the convolutions of the brain. Involvement of the duodenum is usually found. Radiation therapy will cause a marked reduction in the size of these folds and a corresponding improvement in the gastric symptoms is presented by the patient. The roentgen signs in the stomach may be obtained regardless of whether or not blood changes are present. Other lymphogranulomas may possibly produce a similar appearance. Chronic hypertrophic gastritis of extreme grade may simulate these roentgen appearances. Radiation therapy may possibly serve as a therapeutic test, as it does not appear to produce any change in the symptoms or roentgen signs in these cases.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

Dent County Medical Society, January 8, 1937.

BUTLER COUNTY MEDICAL SOCIETY

The Butler County Medical Society met at Poplar Bluff, December 10, 1936.

The following officers were elected for the year 1937: President, Dr. D. A. Hoxie, Poplar Bluff; vice president, Dr. A. Crump, Brosley; secretary-treasurer, Dr. J. Lester Harwell, Poplar Bluff.

The meeting was preceded by a dinner at the Dunn Hotel and after the election of officers public health questions of the community were discussed.

J. LESTER HARWELL, M.D., Secretary.

DALLAS-HICKORY-POLK COUNTY MEDICAL SOCIETY

The Dallas-Hickory-Polk County Medical Society met in the High School Auditorium, Fair Play, at 2:30 p. m., January 5, with the following members and guests present: Drs. C. H. Brown, Fair Play; L. A. Glasco, Urbana; J. W. Murray, Quincy; T. D. Wrinkle, Halfway; Robert P. C. Wilson and F. H. Maples, Marshall; V. H. Greenwood and G. C. Plummer, Buffalo; D. C. McCraw, G. K. Sims and G. D. Smith, Bolivar; A. J. Stufflebam and H. M. Stufflebam, Humansville.

The following officers were elected for the year: President, Dr. J. F. Roberts, Bolivar; vice president, Dr. V. H. Greenwood, Buffalo; second vice president, Dr. H. M. Stufflebam, Humansville; secretary-treasurer (reelected), Dr. G. K. Sims, Bolivar; censor, Dr. G. C. Plummer, Buffalo; delegate, Dr. G. K. Sims; alternate, Dr. G. D. Smith, Bolivar.

Supportive action was taken relative to a resolution of the council of the California Medical Association presented to the House of Delegates of the California Medical Association at its meeting May 25 to 27, 1936. The resolution was to the effect that corporations, in the absence of specific statutory authority, may not practice medicine or surgery in any of its branches; also, since a physician owes his undivided attention and his allegiance to his patient, there must not be a corporation or other layman to whom the physician owes a duty.

A further resolution concerning corporate practice approved by the St. Louis Medical Society, October 13, 1936, was submitted to the Society for its consideration. The Society voiced approval of the attitude of the St. Louis Medical Society and expressed a desire to assist in stamping out any attempt at corporate practice. It

would not, however, commit itself relative to furnishing funds to be used, as expressed by the St. Louis Medical Society, in either the defense or the prosecution of the "necessary test case."

The teachers and students of the High School of Fair Play were invited to hear the talk of Dr. Robert P. C. Wilson, Marshall. He presented a lecture on feeble-mindedness and conservative sterilization of the wards of the state in the school at Marshall in an interesting and instructive manner. He made plain the difference between an idiot, an imbecile and a moron. Dr. Wilson told how the school had come up during the last twenty-five years or more from that of one caring for only a few until now there are nine large buildings that are crowded to their limit and even more than they have housed in these buildings awaiting admission. He told how the school is staffed by a corps of scientifically trained teachers so that these unfortunate individuals may be cared for in the best manner possible. He pointed out that while these feeble-minded persons are four times as prolific as the normal individual, it requires incomparably more in a financial way to care for the feeble-minded than it does for the normal person. The most significant yet unfortunate incident in the matter to be considered is that despite all the expense incurred in the training of these feeble-minded and epileptic people, inasmuch as they are incapable of training beyond a certain age, they can therefore never be anything more than a care upon the state. Dr. Wilson suggested that it is high time the law for conservative sterilization of these wards of the state be put into effect.

Apropos the passage of a motion by the Society following Dr. Wilson's paper, the secretary was instructed to write to each of the three representatives and two district senators informing them according to the following letter: "In order that you may be conversant with our attitude relative to conservative sterilization of the feeble-minded and epileptics of the State of Missouri, and that you might be assisted, at least to a minimum extent, in the discussion of the subject when it is brought to the attention of the Legislative Assembly in its coming session, as well as that you may be guided in casting your vote upon this vital issue, the Dallas-Hickory-Polk County Medical Society at its meeting on January 5, 1937, instructed me as its secretary to inform you that this Society goes on record as endorsing, in toto, the views as advocated by Dr. Robert P. C. Wilson, superintendent, State School, Marshall, in the matter of conservative sterilization of these wards of the State of Missouri. The Society will appreciate having you give this matter your strict attention."

GEORGE K. SIMS, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society met at the Connor Hotel at 8 p. m., December 1, 1936.

Dr. J. L. Sims, Joplin, read a copy of the letter recently sent to the Joplin Board of Education and called attention to the fact that no reply had been received as requested, but that children were being sent to the doctors' offices for examination. A motion that a committee be appointed to discuss the matter with the Board of Education passed. The following committee was appointed: Drs. J. A. Chenoweth, H. L. Wilbur and M. O. Coombs, Joplin.

Following a discussion on the amendment to the by-laws covering a change in the meeting time of the Society, a two thirds majority was recorded in favor of the meeting on the second and fourth Tuesday of each month.

The radio committee reported a meeting but nothing definite had been decided.

The committee for the annual dinner and installation of officers was appointed as follows: Drs. E. R. Hornback and J. L. Sims, Joplin.

The committee on resolutions on the death of Dr. Hardy read the following:

Dr. John Walter Hardy met a tragic death on November 8, 1936. Dr. Hardy had practiced medicine in Joplin for six years. In that time he had won an enviable reputation as a physician and a man. He was respected and loved by all who knew him. In his relationships with his patients he was sincere and honest and in his contacts with his fellow physicians put into practice the spirit as well as the letter of medical ethics. He was never known to speak ill of anyone. As secretary of the Jasper County Medical Society he worked hard to uphold its reputation and traditions.

We as a committee appointed to represent the Jasper County Medical Society wish to express for that body our sincere grief for the death of Dr. Hardy and to extend to his wife and family our deepest sympathy for their great loss.

Committee,

W. M. KINNEY, M.D.,
A. MITCHELL GREGG, M.D.,
B. E. DeTAR, M.D.

It was moved and seconded that a copy of the resolutions be forwarded to the family of Dr. Hardy and that a copy be spread upon the minutes and that the committee be discharged.

The secretary reported that a check covering back dues had been received from Dr. Grover C. McCormack. After a reading of the by-laws covering delinquent dues the secretary was instructed to ask Dr. McCormack to fill out a new application for membership.

Mrs. Marion Post of the Missouri Maternal Health Association was presented to the Society and outlined the work of the association on birth control and asked the cooperation of the Society.

The election of officers resulted as follows: President, Dr. Paul W. Walker, Joplin; vice president, Dr. E. J. McIntire, Joplin; secretary, Dr. M. H. Black, Joplin; treasurer, Dr. H. D. McGaughey, Joplin; censor, Dr. O. T. Blanke, Joplin; delegates, Drs. B. E. DeTar and W. L. Post, Joplin; alternates, Dr. Lloyd B. Clinton, Carthage, and Dr. E. D. James, Joplin.

M. H. BLACK, M.D., Secretary.

RANDOLPH-MONROE COUNTY MEDICAL SOCIETY

The Randolph-Monroe County Medical Society met in the Public Library, Moberly, for its annual session on December 8, 1936.

Officers were elected as follows: President, Dr. J. F. Flynt, Paris; vice president, Dr. Martin P. Hunter, Moberly; secretary-treasurer (reelected), Dr. M. E. Kaiser, Moberly; delegate, Dr. M. C. McMurry, Paris; alternate, Dr. F. L. McCormick, Moberly; censor (three years), Dr. M. E. Leusley, Moberly, (two years), Dr. T. S. Fleming, Moberly, (one year), Dr. J. P. Allen, Cairo.

The application of Dr. R. A. Woods, Clark, was read.

Dr. J. R. Lionberger, St. Louis, spoke on "Endocrinology."

Following the session a lunch was served for members and guests.

Those present at the meeting were Drs. J. R. Lionberger, St. Louis; Gerald Nutter, Columbia; M. C. McMurry and J. F. Flynt, Paris; F. L. McCormick, P. C. Davis, C. C. Smith, L. O. Nickell, M. P. Hunter, T. S. Fleming, M. E. Leusley, L. E. Huber and M. E. Kaiser, Moberly.

M. E. KAISER, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

15th Annual Meeting, Atlantic City, 1937

President, Mrs. Robert Fitzgerald, Wauwatosa, Wisconsin.

President-Elect, Mrs. Augusta Kech, Altoona, Pennsylvania.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

13th Annual Meeting, Cape Girardeau, May 10-12, 1937

President, Mrs. Walter Kirchner, St. Louis.

President-Elect, Mrs. Charles Werner, St. Joseph.

DIRECTORY OF COUNTY AUXILIARIES

COUNTY	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
Boone	Mrs. C. M. Sneed	Columbia	Mrs. S. D. Smith	Columbia
Buchanan	Mrs. Wm. H. Minton	St. Joseph	Mrs. Claude S. Grant	St. Joseph
Callaway	Mrs. J. B. McCubbin	Fulton	Mrs. H. I. Owens	Fulton
Cass	Mrs. David S. Long	Harrisonville	Mrs. Helen Scott Bremer	Harrisonville
Cape Girardeau	Mrs. J. J. Drace	Cape Girardeau	Mrs. P. D. Nussbaum	Cape Girardeau
Clay	Mrs. Harry R. Staley	North Kansas City	Mrs. J. A. Howell	Excelsior Springs
Cole	Mrs. H. S. Gove	Linn	Mrs. J. G. Bruce	Jefferson City
Greene	Mrs. Arthur D. Knabb	Springfield	Mrs. J. P. Ferguson	Springfield
Jackson	Mrs. Harrison C. Trippe	Kansas City	Mrs. Carl R. Ferris	Kansas City
Jasper	Mrs. O. T. Blanke	Joplin	Mrs. B. E. DeTar	Joplin
Johnson	Mrs. John A. Powers	Warrensburg	Mrs. Wm. R. Patterson	Warrensburg
Lafayette	Mrs. J. W. Lightner	Odessa	Mrs. J. D. Guyot	Higginsville
Linn	Mrs. S. T. Brownfield	Brookfield	Mrs. J. R. Haley	Brookfield
Caldwell-Livingston	Mrs. H. S. Dowell	Chillicothe	Mrs. C. H. Brady	Chillicothe
Miller	Mrs. E. C. Shelton	Eldon	Mrs. E. O. Shelton	Eldon
Perry	Mrs. G. A. Blaylock	Perryville	Mrs. J. J. Bredall	Perryville
St. Louis Medical Society	Mrs. W. Antoine Hall	St. Louis	Mrs. Ralph L. Cook	St. Louis
St. Louis	Mrs. John O'Connell	Overland	Mrs. J. O. Hayward	Clayton
Saline	Mrs. F. H. Maples	Marshall	Mrs. G. S. Hardin	Marshall
Vernon-Cedar	Mrs. L. H. Calloway	Nevada	Mrs. G. E. Bartholomees	Sheldon
26th District	Mrs. F. E. Butler	Salem	Mrs. W. E. Breuer	St. James

A cordial invitation is extended to other county medical societies to organize auxiliaries to their societies. It is the aim of the Woman's Auxiliary to assist the medical societies in any way that these societies may request and direct. You may find a Woman's Auxiliary of inestimable value to your society in fostering friendly relations among your members, in assisting you with the entertainment of guests at your meetings and conventions and in furthering, through their health education program, a better understanding among the laity of the aims and ideals of organized medicine.

For further particulars address the Chairman of Organization, Mrs. Frank W. Gillham, 310 Jackson St., Jefferson City, or the President, Mrs. W. C. G. Kirchner, 5175 Cabanne Ave., St. Louis, or the Secretary, Mrs. Frank L. Davis, 6123 Westminster Place, St. Louis.

The health essay contest, "Your Health and How to Preserve It," will end April 1, 1937. The state chairman, Mrs. Charles H. Werner, St. Joseph, writes as follows: Additional references from *Hygeia* which may be used in the essay contest are: "Posture," page 970, "Foods," page 1014, November, 1936; pages 1070, 1098 and 1130, December, 1936; pages 6, 20 and 29, January, 1937. Also the national broadcast on "Your Health, Ladies and Gentlemen," which is on the air each Tuesday afternoon at 4 o'clock over the NBC network may be of use.

Members of the 26th District and the auxiliaries enjoyed a delicious Thanksgiving banquet November 12 at the Rolla Hospital with the hospital staff as hosts, the event being the celebration of the fifth anniversary of the establishment of the hospital at its present location. After the banquet a meeting was held with the president, Mrs. F. E. Butler, Salem, presiding. Plans were made for programs at the meetings and the use of *Hygeia*. Mrs. W. E. Breuer, St. James, talked on

"Armistice Day" and Mrs. C. Mallett, Crocker, gave a book review of "Man the Unknown."

The National Auxiliary issues a Quarterly News Letter which is full of interesting and important auxiliary news. The October number contained a most interesting article by Mrs. David S. Long, Harrisonville, Missouri. Any member of the auxiliary may obtain this valuable publication by sending \$1 to the National Chairman of Press and Publicity, Mrs. James P. Simonds, 25 E. Walter Place, Chicago.

The National Auxiliary will be given space each week in the *Journal* of the American Medical Association in the section devoted to the Bulletin. Mrs. J. P. Simonds, Chicago, writes: "The Board of Trustees and the officials of the Association have extended this courtesy to the Auxiliary because of the increasing usefulness of its service to the medical profession." This auxiliary news, the first of which appeared in the issue of January 2, 1937, will be edited by Dr. Morris Fishbein. The *Journal of the America Medical Association* has a weekly publication of approximately 100,000 copies.

CORRESPONDENCE

CANCER WORK IN MISSOURI

To the Editor:

A recent cancer survey under the auspices of the American Society for the Control of Cancer brought before those interested in the cancer problem the inadequacy of the facilities for the care of the indigent cancer sufferers in the state. The General Assembly of 1935 took steps to remedy this situation by enacting a law which provided diagnosis, treatment and temporary

care for a period not to exceed six weeks for indigent cancer patients in any state hospital which has special facilities for their care. They felt that such a law would reduce the number likely to become permanent public charges. The State Hospital at Fulton is the only one of the four equipped at present to give cancer treatments. The Missouri State Medical Association recommended the establishment of tumor clinics in the larger centers of population of the State. Such clinics can take a large part of the load from the Tumor Clinic at Fulton both to the advantage of the patient and the local physicians. Another tumor clinic is being organized at State Hospital No. 2 in St. Joseph. This second state tumor clinic will increase the cancer treatment facilities but will only be one other step in the direction of a control of the cancer disease.

Although cancer is one of the most dreaded of all diseases, it is not always fatal as many people believe. It can and is being successfully treated when diagnosed in its early stages. This is not always possible because of the insidious nature of the disease. However, there are at least four danger signs which should not be overlooked. They are: (1) Any lump, especially in the breast, which persists; there may be no other danger signs, no pain, no feeling of ill health; (2) any sore which does not heal, especially about the tongue, mouth or lips; (3) any bleedings or unusual discharge from any of the openings of the body and, (4) persistent indigestion with loss of weight. These signs do not necessarily mean cancer but you cannot tell. A thorough examination by a physician should follow the recognition of the above signs. The public should be educated to the importance of recognizing early symptoms and of prompt treatment. The medical profession has made rapid progress in the treatment of cancer. Although much is left to be learned there are now three successful methods of treatment. These methods are surgery, roentgen ray and radium. They may be used alone or in combinations, but should only be used by persons skilled in their application. The cost of the equipment necessary for the aforementioned effective methods of treatment is considerable and is not available at present to the average Missouri citizen of limited income.

Some statistics relative to death from cancer during the last few years may be enlightening. Since 1937 cancer has occupied second place (heart disease ranks first) as a cause of death in the registration area which includes 96.3 per cent of the total population of the United States. Deaths from cancer are increasing annually. In the State of Missouri in 1920, 2540 deaths were attributed to cancer. This is at a rate of 74.5 per 100,000 population. By 1935 the total number of deaths from cancer in Missouri had increased to 4619 which is at a rate of 124.9 per 100,000. Statisticians debate as to whether this increase is relative or actual, but this question is not of so much importance to those interested in prevention and control of the disease. The important point is that more people are dying of cancer each year. Cancer knows no social or economic bounds. In the United States the estimated annual loss from this disease due to death and incapacity is \$800,000,000. Therefore, the loss to the state would be approximately \$26,000,000 annually. Studies on the incidence of cancer have shown that there are about three living cases to each death. Thus, based on 4619 deaths in 1935, there are approximately 14,000 people suffering from cancer in Missouri. It is believed that the death rate from cancer could be reduced one third or even one half by a wider application of known methods of prevention and treatment.

I became personally interested in the cancer problem

while making a trip through the Ozarks where I saw a great many neglected cases. In 1933 there was 100 milligrams of radium owned by State Hospital No. 1 in Fulton which was being used on perhaps an average of six patients a year, all inmates of a state mental hospital. It seemed a shame and a waste of money to have nearly \$10,000 worth of cancer treatment facilities which were being used on so few patients when so many indigent persons were in need of treatment. It is possible to use radium indefinitely in the treatment of cancer without losing its strength. The Committee on Cancer of the Missouri State Medical Association was asked to formulate a plan to make these facilities available to more citizens of the state. The result has been the Tumor Clinic at the State Hospital in Fulton which was opened to ambulatory patients on September 20, 1933. Since there was no appropriation to take care of the added expense, a member of the Cancer Committee, Dr. D. A. Robnett, Columbia, agreed to accept full responsibility for the operation of the clinic. This entailed a great sacrifice of time and effort on his part since it was necessary to make weekly trips (the clinic is open from 1 to 3 on Wednesdays) to the clinic and not only examine patients but also train the personnel of the hospital in the application of radium. Dr. T. S. Lapp, of the State Hospital staff, is in charge of the clinic, and to make possible diagnosis and treatment by the most scientific methods Dr. Lapp has spent the last two summers studying in the East. Since the opening of the clinic 205 patients have been treated. Most of these patients were ambulatory but since the passage of the "Six-Week Law" in 1935 it has been possible to hospitalize a few patients. While the equipment purchased for the state hospitals at Fulton and St. Joseph is up-to-date, the constant experiments to obtain new types of radiation are going on. For instance, just recently a type of radiation has been announced which has proven four times as successful as roentgen ray in destroying a certain type of malignant tumor which occurs in mice. Should these experiments prove equally successful to cancer in man it will mean the provision of new apparatus in all cancer institutions in the country.

In order to protect the medical profession and the clinic from abuse from other than really indigent patients, the cancer committee requires that every patient presenting himself for treatment should submit to an application on a printed form requiring certification by a reputable physician, and also by an accredited social service agency or county court. Blanks may be obtained by writing the Tumor Clinic, State Hospital No. 1, Fulton, Missouri.

The effect of the work of the Tumor Clinic has been hampered to a large extent by the lack of facilities for hospitalizing patients, but with the completion of the new hospital thirty-two more beds will be available. The possibilities for effective care of the indigent cancer patients in this state are infinite. There is hardly a county which does not number among its inhabitants several cancer patients who under the present inadequate facilities are doomed to die unless they receive prompt and proper treatment. Besides curing those early discovered cases of cancer much can be done to alleviate the suffering of the hopeless cancer case by providing hospitalization for the cases under the care of a medical and nursing staff interested and trained to provide the best that medical science can offer. This will not only tend to make the last days of the incurable patient much more endurable, but will relieve families and communities of a responsibility which they cannot be expected to assume. There is no reason why

these patients should not be hospitalized in a state institution on the same basis that the insane or tuberculous patients are now admitted, with the cost of maintenance apportioned on a fair basis to the county in which the patient resides.

W. ED. JAMESON, President,
Board of Managers, Mis-
souri State Eleemosynary
Institutions.

IMPOSTERS

To the Editor:

Articles have recently appeared in certain papers telling about the alleged exploits of a certain Frank Fielding and two companions who claim to be traveling by roller skates. It was said that Fielding had visited eighty-one countries and that he originated the tour with two roommates at the University of Southern California.

An inquiry from a school official reads as follows: "Enclosed please find a clipping from one of your St. Louis papers covering the activities of a Mr. Frank Fielding. Mr. Fielding over here posed as a human guinea pig and claimed to have his expenses paid out of a large sum of money advanced by certain prominent Englishmen under the direction of a group of doctors of Vienna University, Vienna, Austria. We are doubtful as to his whole story. He says he will be speaking in the public schools of St. Louis; perhaps some of the service clubs of St. Louis as well. You might be interested enough to look into this case."

A bulletin in the files of the Better Business Bureaus warns to be on the lookout for Frank Fielding, George Richards and Morris Walton who were said to be traveling from city to city, giving lectures before schools, colleges, clubs, etc., misrepresenting themselves as being "human test tubes" participating in an experiment conducted under the sponsorship of the Rockefeller Foundation, the Mayo Clinic or the American Medical Association. Each of the institutions named has denied emphatically any connection whatsoever with these men.

The registrars of both the University of Southern California and the University of California at Los Angeles have informed the Better Business Bureau of St. Louis that there is no record of any of these men ever having attended either school.

If these self-styled "human guinea pigs" or "human test tubes" attempt to impose upon the schools or clubs of your community we suggest that they be received in a manner befitting imposters.

BETTER BUSINESS BUREAU OF ST. LOUIS, INC.

BOOK REVIEWS

WILLIAMS OBSTETRICS. A Textbook for the Use of Students and Practitioners. By Henricus J. Stander, M.D., F.A.C.S., Professor of Obstetrics and Gynecology, Cornell University Medical College, etc., New York City. Seventh Edition. A revision and enlargement of the text originally written by J. Whitridge Williams. New York, London: D. Appleton-Century Company, Incorporated. 1936. Price \$10.00.

Into this standard work on obstetrics have been inserted all the newer important contributions to obstetrical art and science. Three new chapters have been added, viz., one dealing with pyelitis and other urinary complications; another on the relationship of the sex

hormones to menstruation, pregnancy, parturition and lactation; and a third on the newer methods of anesthesia and analgesia.

The toxemias of pregnancy are given detailed consideration, both in regard to laboratory findings and to prognosis and treatment. Numerous new illustrations have been added throughout the book. The conservative attitude toward obstetrical problems that was characteristic of Williams' text is maintained in this most excellent revision by Stander.

R. B.

PRINCIPLES OF CHEMISTRY. An Introductory Textbook of Inorganic, Organic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry With Laboratory Experiments. By Joseph H. Roe, Ph.D., Professor of Biochemistry, School of Medicine, George Washington University; formerly Instructor in Chemistry, Central School of Nursing, Washington, D. C. Fourth Edition. St. Louis: The C. V. Mosby Company. 1936. Price \$2.75.

It is with interest and pleasure that I have had the opportunity to read the new text of Dr. Matthews covering the field of biochemistry. As the result of many years of contact with students and practitioners he is thoroughly qualified to offer to the profession the treatise covering its problems. He has included in his book an accumulation of interpretative knowledge of great value to the student of medical biochemistry.

This book should be of especial interest to the practicing physician who has been out of school for some time. Its organization is such as to give the theoretical and practical aspects of the various subjects in a sequence which will be helpful to the individual who needs to apply the principles of present day biochemistry to everyday problems in medicine. The book is thoroughly worth reading, no matter what the specialty of the individual might be, since it covers practically every phase of chemistry in medicine.

D. B. C.

EXOPHTHALMIC GOITER AND ITS MEDICAL TREATMENT.

By Israel Bram, M.D., Medical Director, Bram Institute for the Treatment of Goiter and Other Diseases of the Ductless Glands, Upland, Pa., etc. Foreword by R. G. Hoskins, Ph.D., M.D., Director of Research, Memorial Foundation for Neuro-Endocrine Research, Harvard Medical School, Boston, Mass. Second Edition completely revised and enlarged with seventy-nine illustrations. St. Louis: The C. V. Mosby Company. 1936. Price \$6.00.

This book presents a detailed discussion of the etiology, diagnosis and treatment of exophthalmic goiter. The chapters on etiology contain the usual manifold theories found in all monographs on this subject, but particular emphasis is placed on the importance of psychic trauma in the causation of this disease. Very recent work on the production of exophthalmos and goiter is mentioned casually and briefly. The chapters on signs, symptoms and laboratory aids in the diagnosis are unusually comprehensive and clear.

The unique value of this book lies in the chapters on treatment. Since the author stresses the psychic factors in etiology he likewise stresses psychotherapy. He distinguishes laboriously between exophthalmic goiter, hyperthyroidism and toxic adenoma, claiming that the latter two are local diseases requiring local treatment and the former is a constitutional condition requiring generalized treatment. His treatment

consists of prolonged rest, meticulous attention to diet, the careful use of many drugs and, above all, expert psychotherapy. Among the drugs he lists especially quinine, barbituric acid and its derivatives, and eserine. On the other hand, although the author believes that iodine possibly hastens improvement, he minimizes its value to the extreme.

Until the exact etiology of exophthalmic goiter is determined and attacked directly, emphasis of therapeutic procedures upon the organ through which the causative factors work does not appear to be illogical. The author's wholesale condemnation of surgery and radiation does not seem to be justified. One cannot help but feel that he is as much prejudiced against the methods of surgeons and radiologists as he believes them to be against his medical treatment. However, his accusation that medical treatment has been sadly neglected or very amateurishly administered is probably just.

The book contains a number of loose and unsupported statements and opinions and several contradictions. Nevertheless, all internists, surgeons, and radiologists should read this book carefully for they will find in it much food for thought and many valuable and practical suggestions.

L. C.

ARTHRITIS AND RHEUMATIC DISEASE. By Maurice F. Lautman, M.D., Consultant to the United States Public Health Service Clinic and Director of the Department for the Study of Arthritis, Levi Memorial Hospital, Hot Springs, Arkansas. With a foreword by Morris Fishbein, M.D., Editor, *Journal of the American Medical Association*. New York: McGraw-Hill Book Company, Inc. 1936. Price \$2.00.

This valuable guidebook is the second in the Whittlesey House Health Series under the editorial aegis of Dr. Fishbein for the medical education of the laity. The widespread prevalence and apparently increasing incidence of arthritis and rheumatic diseases make this an opportune volume. The author's vast experience with these frequently refractory conditions, together with a temperate judgment and a clear, facile style have produced a treatise which should impress the reader with the folly of seeking short cut cures in foot twisting, spine thrusting and in all irregular practices. He has wisely avoided dogmatic statements on controversial questions and has stressed prevention, assiduous attention to the prearthritic state and a painstaking, comprehensive and well rounded therapeutic approach once the disease has become established. While primarily intended for the public this succinct volume can be recommended highly to the diligent general practitioner.

B. D. S.

MINOR SURGERY. By Frederick Christopher, S.B., M.D., F.A.C.S., Associate Professor of Surgery at the Northwestern University Medical School, Chicago; Chief Surgeon at the Evanston (Ill.) Hospital. With a Foreword by Allen B. Kanavel, M.D., F.A.C.S., Professor of Surgery at the Northwestern University Medical School. Third Edition, reset. With 709 illustrations. Philadelphia and London: W. B. Saunders Company. 1936. Price \$10.00.

With the author's suggested plan of treatment of simple minor surgical wounds I must differ. (Chapter II.) For instance, novocain crystals or tablets or even strong solutions give ample anesthesia for suturing provided sharp fine needles are used. As to the cleansing and preparation of the wound, bleeding

should be controlled and again I differ with his procedure (the washing of the wound with soap and water directly). For twenty-five years or more I have ceased doing his way and now merely wipe off the wound margins with alcohol (70 per cent), saline, etc., depending upon the wound and antiseptic properties of the blood, for promotion of primary healing; and I believe this method far superior and that infections are practically nil.

Other subjects are "Foreign Bodies"; "Furuncles and Carbuncles"; "Burns"; "Injuries by Electricity"; "Circulatory Disturbances and Gangrene"; "Injuries of the Head"; "Infections of the Head"; "Injuries and Infections of the Neck"; "Injuries and Infections of the Trunk"; "Male Genito-Urinary Organs"; "Female Genito-Urinary Organs"; "Local Anesthesia in Reduction of Fractures," and "Infections of the Upper Extremity."

Chapter XXIV covers the surgical intern and illustrates steps in tying knots. This well worth while chapter can be read with benefit by the surgeon as well as the intern.

On the whole the book contains a wealth of information and should be in every practitioner's library; it is needless to add that a copy should be in every hospital library.

W. H.

THE AUTONOMIC NERVOUS SYSTEM. Anatomy, Physiology, and Surgical Treatment. By James C. White, M.D., Assistant Professor and Tutor in Surgery, Harvard Medical School; Assistant Visiting Surgeon, Massachusetts General Hospital, Boston. New York: The Macmillan Company. 1935. Price \$7.00.

A dozen years ago Hunter and Royle suggested cutting the sympathetic rami in the treatment of spastic paralysis. Although subsequently the procedure was shown to be unphysiologic in this condition an entire new field of investigation and therapy was opened and an enormous amount of research on the autonomic nervous system instigated. In this excellent résumé of anatomy, physiology and surgical application, the author, himself an important contributor to the exploration of this field, has provided a lucid and succinct volume.

After a short but interesting chapter on historical development, the anatomy and physiology, more especially in their application to clinical medicine, are dealt with. An important section discusses methods of study to which too much thought can hardly be given if unsatisfactory or unwarranted procedures be not essayed. Part II describes in greater detail the significance of the autonomic system in the causation or relief of various diseases and syndromes while Part III contains the description of surgical procedures advocated.

This monograph can be recommended as an authoritative study of a new and relatively poorly understood subject.

P. S. L.

A DIABETIC MANUAL. For Practitioners and Patients. By Edward L. Bortz, A.B., M.D., F.A.C.P., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, etc. With a Foreword by George Morris Pierson, B.S., M.D., F.A.C.P., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Illustrated. Philadelphia: F. A. Davis Co. 1936.

A small book for the diabetic designed to ease the physician's task.

B. Y. G.

THE JOURNAL

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DIFFERENTIAL DIAGNOSIS OF MEDIASTINAL LESIONS

J. J. SINGER, M.D.

ST. LOUIS

The mediastinum is often described as a definite entity but the relationship of its contents to the lungs is so intimate that we must always consider the subject in combination.

When one considers that the symptoms present are almost always due to pressure on the lung, it can readily be understood why the problem of mediastinal diseases must be studied carefully to rule out the lungs per se as being the main disease.

The mediastinum consists of an anterior and posterior compartment. The anterior mediastinum lies in front of the root of the lung, the posterior mediastinum behind the root of the lung.

In the mediastinum supracardium, the first layer under the sternum is loose fatty tissue which is in man, for the most part, the remains of the thymus gland. The second layer is formed by the innominate veins and by the inferior thyroid veins and the internal mammary veins, both of the latter emptying into the innominate veins. The next structure which is met, and which lies for the most part in the midline, is the superior vena cava. The lower half of the superior vena cava is covered by pericardium and is, therefore, not visible. The great vessels in reality pierce the pericardium. The third layer is composed of the arch of the aorta and the branches which it gives off. The posterior portion and the fourth layer, composed of the trachea and the esophagus, form the anterior wall of the posterior mediastinum. Other structures to be considered in the posterior mediastinum are the sympathetic nerves, the recurrent laryngeal nerves and lymph glands. Under the mediastinal pleura, on either side of the me-

diastinum supracardiacum, lie the phrenic nerves and medial to them the vagi, cardiac depressor and other nerves.

Symptoms and signs of pressure on the trachea and the bronchi are dyspnea, orthopnea, stridor, brassy cough and hemoptysis.

Pressure on the esophagus produces dysphagia; on the lung, atelectasis; on the aorta and pulmonary vessels, symptoms of cardiac back pressure, and on thoracic duct, edema. Pressure on the vena cava and innominate veins produces edema and cyanosis of head, neck and arms.

When the nerve trunks are pressed upon there are neuralgic pains, hoarseness, Horner's syndrome and paralysis of the diaphragm, etc. Mediastinal lesions can frequently be located by the pressure signs but exact localization is only possible with the many new methods of pulmonary studies.

The physical signs of mediastinal lesions obviously depend on the amount of space the mediastinal mass occupies, plus the organs upon which they press. Certain lesions produce atelectasis of the lung in greater or lesser degree, while other masses will press on the vena cava producing fluid in the chest with more or less collapse of the lung which will give entirely different signs. The important data to be considered in the interpretation of the physical signs of the chest when mediastinal involvement is considered, is to bear in mind that the complications often overshadow the initial lesion. The physical signs should always be checked by fluoroscopy by which one can see the shadows in the chest in various positions and one can often see the primary lesions as a distinct entity from the complications. With the use of iodized oil it is possible to outline the trachea and bronchi, and by changes in distribution of the bronchial tree one can readily see if there is obstruction in any part of the lung. In mediastinal lesions one must be careful in recommending bronchoscopy if aneurysm is suspected. With the newer method of kymography, one can readily see whether a mass pulsates or not. The

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Read before the Chicago Tuberculosis Society and the Chicago Roentgen Society, Chicago, November 12, 1936.

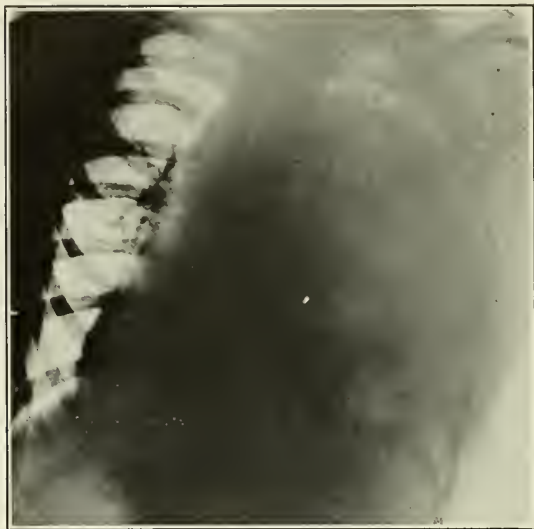


Fig. 1 (Case 1). Taken February 24, 1930, shows a large unilateral shadow in the right chest. The dense shadow is such that the various structures which contribute to making this are not visible.

use of the bronchoscope, however, is not as essential as in consideration of an interbronchial mass.

The most important conditions arising in the mediastinum which demand attention are the cysts, dermoid and teratoma; tumors of the nerve system, the neurofibromas arising from the nerve sheaths and ganglioneuromas, usually in the posterior mediastinum, and neuroblastoma, the hyperplasia of the thymus, so-called status thymicolymphaticus, tumors of the mediastinal lymph nodes, small round cell lymphosarcoma and leukemia. The pseudo tumors are those that occupy space such as collections of fluids or pus in the mediastinum.

While the above conditions do not cover all the lesions that present themselves in the mediastinum, they are the most important ones. Practically all are malignant and the majority are of the sarcoma type, although thymocarcinoma is occasionally found. Wherever possible, available glands are removed for biopsy and occasionally a positive diagnosis can be made only in that way. Sometimes an association of these tumors is so close that it is hard to differentiate a round cell thymus growth from small cell carcinoma of the lung. Of the cysts, the dermoid cyst and teratoma, arising in various displacements of the epidermal structure, are of branchiogenic origin and are often drawn into the chest by the descent of the heart, usually situated in the anterior mediastinum although sometimes they grow to such size that they displace the contents of the chest. One occasionally finds that patients having this condition will cough up material containing hair and even calcium plaques.

Of the benign tumors, fibromas, lipomas, myxomas and chondromas are the most common. The above, however, while anatomically benign, produce symptoms of such importance that operative removal is often urgent. Occasionally esophageal cardiospasm produce immense shadows in the mediastinal area that simulate tumors. These can be recognized by swallowing barium and then with proper roentgen studies, the true nature can be identified.

There is a class of tumors within the mediastinum which are radiosensitive, and some of the most dramatic cures are obtained with this type. Lymphosarcomas, enlarged lymph nodes due to Hodgkin's disease, are the tumors usually effected in a favorable manner by roentgen ray. It is interesting to note that the effects of the treatment are sometimes not observed for from five to six weeks.

With the present equipment, roentgen ray therapy of mediastinal masses is much more effective than in previous years, and much hope is held in the further increase in the voltage used. Unfortunately, the majority of tumors are not affected but the therapeutic test is usually given in most instances. A rather large number of cases of leukemia have been reported following the use of the roentgen ray treatment and this must always be borne in mind as a possible sequela. Because occasionally we have masses that resemble tumors which in reality are enlarged thyroids in the substernal space, a routine metabolism test is done with the other appropriate tests to rule out possible hyperthyroid condition.

REPORT OF CASES

Case 1. Mediastinal tumor (Hodgkin's disease) with pleural effusion. C. C., a woman, aged 24 years, was admitted to Barnes Hospital, February 20, 1930, with a history that since October, 1929, she had lost



Fig. 2 (Case 1). Film taken March 1, 1930, shows the mediastinal mass outlined after several hundred cc. of fluid were removed and replaced with air. The biopsy specimen from this mass shows this to be Hodgkin's disease.

strength and has suffered sharp stabbing pain in the right upper chest associated with cough. An afternoon rise in temperature (101° F.) was noted in November, 1929. On February 1, 1930, her face, arms and neck began to swell. Because the presence of fluid was suggested by roentgen ray film, an attempt was made anteriorly to withdraw it. Aspiration in the right axillary line yielded serous fluid.

It was noted that the patient had marked swelling of the face, neck and right arm. She was orthopneic and rather pale. Her blood pressure was 108 systolic and 68 diastolic, the same in both arms. Physical findings were all referable to the right chest. On questioning it was found that she also suffered from sternal tenderness and general itching. Her leukocyte count was 18,900, with a relative preponderance of polymorphonuclear cells (90 per cent); there was no eosinophilia. Laboratory findings were negative.

Aspiration of the chest in the right midaxillary line on February 21 yielded 1200 cc. of thin straw colored fluid. The laboratory findings were negative. There were repeated aspirations. A diagnostic pneumothorax was done which disclosed a dense mass, apparently mediastinal, with collapsed right lung and free fluid in the pleural cavity. After the aspiration of from 300 to 500 cc. of fluid the edema of the face, neck and arm diminished. It was, therefore, presumed that there had been definite compression of the superior vena cava.

After the analysis of the signs, symptoms and roentgen ray studies the following diagnoses were considered: (1) Mediastinal tumor, Hodgkin's disease; (2) serofibrinous pleurisy, tuberculosis; (3) atelectasis of the lung due to fibrosis; (4) endothelial tumor.

As the shadow in the right chest was homogeneous, the question arose as to whether the lung or the pleura was involved. Only a small part of the injected iodized oil entered the right bronchial tree because in all probability there was a pathologic compression of the main bronchus. Confirming this probability was the presence of fluid in the pleura. The blood picture was somewhat suggestive of Hodgkin's disease. The aspirated fluid was centrifuged but no tumor cells were found. The sputum was consistently negative for tubercle bacilli. No glands were palpable for biopsy.

Deep roentgen ray therapy was started on February 24 and was continued at intervals of several weeks. As the mass did not disappear after several roentgen ray



Fig. 4 (Case 2). Taken May 23, 1932, shows an atelectasis of the left lung with high left diaphragm. A small amount of diagnostic pneumothorax of upper left chest. Lipiodol outlines the trachea which is spite of the atelectasis of the left lung is over toward the right of the midline. In the original film lipiodol shows a block of the left main bronchus. An autopsy report of the specimen shows this to be an endothelioma.

exposures and the dyspnea and cyanosis became alarming, it was decided to do a decompression of the anterior right chest. Dr. Evarts Graham removed portions of the second and third right costal cartilages. When the mediastinum was exposed a large firm, slightly gray, nodular mass was found firmly attached to structures within the chest wall and presenting all the characteristics of a malignant tumor. The biopsy of a small portion removed for microscopic examination showed Hodgkin's disease. Following the operation the edema of face, neck and hands disappeared and the patient steadily improved. The question arose as to whether the roentgen ray treatment or the decompression produced this change.

Discussion: The signs and symptoms could be those of pleurisy with effusion of tuberculous origin, but the length of time and negative guinea pig inoculation ruled out tuberculosis. It is rarely noted that effusions alone produce vena caval obstruction. Diagnostic pneumothorax, however, showed the mediastinal mass separable from lung and pleura.

This case demonstrates also the delayed action of the roentgen ray treatment. The diagnosis, however, was made by the biopsy specimen removed at the decompression operation.

Case 2. Thymoma or endothelioma (Ewing's tumor). J. H., aged 32 years, married male, was first seen by Dr. Walter Fischel several months prior to hospital entry. At that time he gave a history of frequent attacks of nausea and vomiting after meals and chronic cough. He had previously been considered an allergic individual and was treated on that basis.

In the course of examination, an enlarged spleen and a monocytosis were noted. Suspecting Hodgkin's disease a roentgen ray film was taken which revealed a widened mediastinum and a small mass in the right lung adjacent and apparently continuous with the mediastinum. The patient subsequently received ten roentgen ray treatments, each causing a severe local reaction. These treatments, apparently accentuated his coughing. About two weeks before hospital entry, the patient had signs and symptoms of atelectasis of the left lung. Following this paroxysmal attacks of coughing were frequent and severe.



Fig. 3 (Case 2). Taken January 1, 1932, shows a slight widening of the upper mediastinal shadow. The lung markings are somewhat thickened but otherwise nothing was noticed of importance.

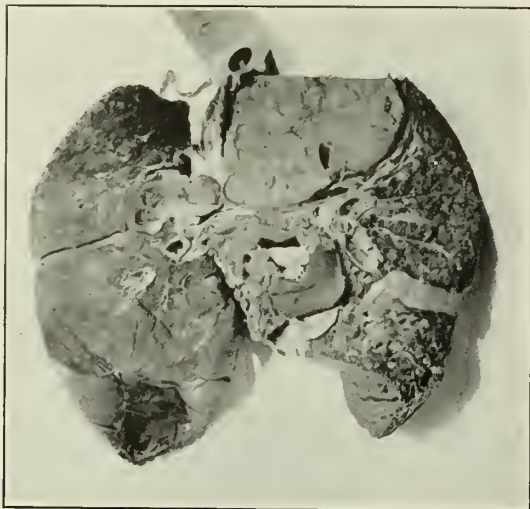


Fig. 5 (Case 2). Autopsy photograph shows a large mass compressing the left lung, the trachea and the aorta. Rather large mediastinal mass noticed in the right hilar region.

He became critically ill on April 24, had marked emaciation and signs and symptoms of atelectasis of left lung. At that time his temperature was 38.7 and fluctuated between 40° and normal until he expired.

Physical signs and roentgen ray films show atelectasis of left lung with fluid, also mass in mediastinum. Thoracentesis was done on several occasions. The fluid which was removed in small quantities on such occasions revealed nothing of diagnostic importance.

Several roentgen ray treatments were again given without subjective or objective relief. Laboratory findings were negative except for marked leukocytosis ranging from 20,000 to 30,000 with a marked shift to the left. Sputum was occasionally purulent, but mainly mucoid. Kahn test was negative.

Autopsy findings were tumor of the mediastinum involving the mediastinal structures and infiltrating the left main bronchus with metastasis to the right bronchus and both lungs. Acute fibrinous pericarditis and

pleurisy, pleural effusion, bronchopneumonia, old disseminated tuberculosis and arteriosclerosis.

Tumor: Microscopic pathology: The tumor consists of large polygonal cells with large vesicular nuclei and abundant pink staining cytoplasm, arranged in alveoli formed by connective tissue strands. In the lumen of the alveoli are these polygonal cells and giant cells with several nuclei generally situated at one end of the cells. Many of these giant cells contain polymorphonuclear leukocytes. There are polymorphonuclear cells scattered through the fibrous tissue. In the section of the tumor connected with the lung the center is necrotic. The tumor has most probably originated from the reticule endothelial cells of mediastinal lymph nodes (Ewing's tumor).

Discussion: The symptoms and signs in this case resemble the first, but no vena caval obstruction was noted. It should be noted that the mass was mostly in the left chest; the blood picture was suggestive of Hodgkin's disease. No response to therapeutic roentgen ray treatment ruled out the Hodgkin's disease and lymphosarcoma. The lung was much compressed and added considerably to the picture, but in itself was not diseased. The pressure on the large vessels was of such a nature that it surrounded the aorta and this did not compress it to any marked degree.

The diagnosis at autopsy was suggestive of endo-thelioma (Ewing's tumor).

Case 3. Lymphosarcoma. O. S., aged 34 years, male, entered Barnes Hospital November 9, 1925, complaining of swelling of neck for three weeks, which interfered with breathing and swallowing. Lumps appeared just anterior of each ear which were tender but subsided. Has had no fever. Has had paroxysms of coughing during three weeks, not productive.

Chief complaint, swelling in neck and face and pain in shoulders. Family history, essentially negative, no history of tuberculosis or blood disease in family. Eyes are negative. No previous history of swelling or masses in neck. No history of pain in chest, colds, coughing, shortness of breath on exertion or of precordial pain. No night sweats. Gastro-intestinal tract was negative.

In the present illness, three weeks ago patient noticed his collar choked him. Three days later he noticed



Fig. 6 (Case 3). Taken November 12, 1927, shows a large mediastinal mass occupying almost half of the upper chest cavity.

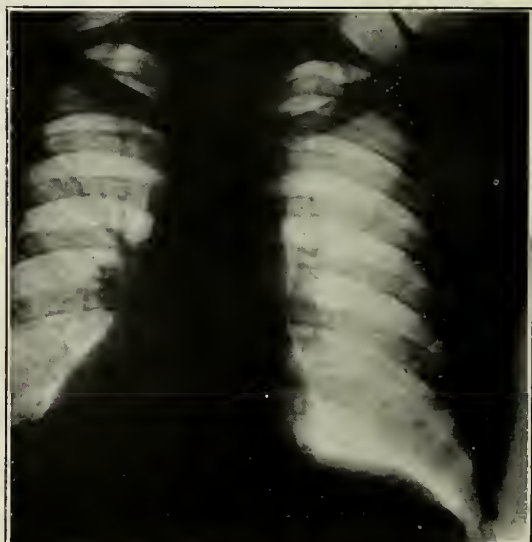


Fig. 7 (Case 3). Taken November 18, 1925, shows the disappearance of the mass after two massive roentgen ray treatments.

lower part of neck became swollen. Then gland in front of left ear was swollen, became larger and two days later noticed puffiness of the left eye. Then left wrist and left hand became swollen. Swelling was painless. Pain developed in right shoulder.

Laboratory findings: Hemoglobin, 78 per cent; red blood count, 4,500,000; white blood count, 8,500; neutrophils, 75.6 per cent; small mononuclears, 16 per cent; large mononuclears, 5.6 per cent; basophiles, .8 per cent; eosinophiles, .4 per cent; transitionals, .4 per cent; sputum negative for acid fast organisms; many pus cells and numerous bacteria; blood pressure, 145/85, right; 128/90, left.

October 11, 1925: Mass over left cheek about the size of a half walnut which is somewhat movable. There are glands in both cervical regions, axillary and inguinal. Breath sounds diminished anteriorly, especially on the left side, more distinct on the right side. Posterior breath sounds on left side are harsh. Many rales heard, no marked dullness. Fluoroscopic and roentgen ray plates show a tremendous mass completely filling out cavity when viewed anteriorly and posteriorly. No pulsations. The apex of the heart is distinctly seen only when patient is turned tangentially. The right border of the shadow is turned almost straight in vertical direction.

October 25, 1925: Physical signs show evidence of anterior mass in the chest; distress in upper part of chest; pulsating mass in upper sternum. There is a swelling of neck with engorgement of vessels, also enlarged veins over upper chest.

November 12, 1925: Under novocaine anesthesia a gland 1 by 2 by 2 cm. was removed from left neck. Gross pathology: Material consists of a lymph node about 1 cm. in diameter. Upon section, this showed rather white glassy tissue quite suspicious of Hodgkin's disease in the gross. Microscopic: Sections showed a lymph node in which the capsule is still intact. The architecture of the rest of the node, however, is gone and there is instead a solid mass of fairly large lymphocytes.

Diagnosis: Lymphosarcoma.

On November 13, 1925, patient received first roentgen ray treatment and on November 14, 1925, received the second. On November 17, 1925, the fullness in neck had decidedly diminished. November 19, 1925, the white blood count was 6,400, red blood count 4,480,000, hemoglobin 80 per cent. On November 21, 1925, patient was discharged improved.

Several months later patient died of recurrence with sarcoma of the jaw.

Discussion: This case is typical of the round cell sarcoma type of mediastinal lesions, the symptoms of pressure came on late in the disease because the chest contents were adapted to a slowly growing tumor but when the mass began to get larger, the patient noted the choking sensation.

This patient did not present himself for examination until the compression of the trachea was so extensive that dyspnea was extreme. No doubt an earlier diagnosis could easily have been made had a routine study been done months before. The prompt response to roentgen ray therapy was dramatic, but unfortunately, another mass developed in the left lower jaw from which he expired.

CONCLUSIONS

1. Newer diagnostic methods have made earlier diagnosis of mediastinal lesions possible.
2. When treatment is given early, many cases of mediastinal lesions can be cured.

CORONARY OCCLUSION

JULIUS JENSEN, M.D.

ST. LOUIS

Following Heberden's original description of angina pectoris this symptom soon became associated with coronary disease in the minds of physicians. For a long time the form of anginal pain which is persistent and not relieved by rest, "status anginosus," was thought to differ from other anginal pain only in duration and coronary closure was considered a fatal condition observed only postmortem.

However, since the writings of Herrick, Levine and Parkinson and Bedford it has become generally recognized that a persistent pain of the type usually called angina pectoris is the result of coronary closure, at least in the majority of cases. Both coronary closure and angina pectoris are usually associated with disease of the coronary arteries. But coronary occlusion is more or less permanent and the result of thrombosis, while angina pectoris is a temporary insufficiency of the blood supply to the heart. This transient precordial pain is, therefore, not so likely to be followed by permanent myocardial damage, in which respect it differs fundamentally from coronary occlusion.

In typical cases, coronary occlusion is readily distinguished from angina pectoris but sometimes the differentiation is difficult. Coronary occlusion is often followed by a fall of blood pressure to normal if the patient previously had hypertension, below normal if the blood pressure was normal before the attack. During the first few days following the accident there may be a low grade fever (100 to 102 degrees) with a corresponding leukocytosis (10,000 to 20,000). Many patients also have a transient glycosuria and other urinary findings which clear up after the acute stage has passed. Frequent examinations of the heart may be rewarded by the finding of transient auricular fibrillation or of a pericardial friction rub. They may last for only a few hours but are of great help in the diagnosis. Electrocardiographic examinations are most useful and serial tracings usually show changes which determine the diagnosis.

It is of the greatest practical importance to distinguish between coronary occlusion and acute abdominal conditions. In the past coronary occlusion was frequently mistaken for "acute indigestion" both by physician and by patient, and almost invariably could a scapegoat be found in the form of some article of diet, be it iced watermelon, cucumber, etc. In

this connection it may be noted that attacks of coronary occlusion have sometimes been precipitated by ice cold drinks. Most of the deaths which the daily press continues to ascribe to "acute indigestion" are really caused by coronary occlusion. To the surgeon this differentiation is especially important because the similarity may be so close as to deceive the most experienced unless great care be taken. Often the differentiation must be based on circumstantial evidence such as a history of gallbladder or other abdominal disease. The pain of coronary disease is rarely felt over the apex of the heart: more commonly it is over the lower or middle sternum but most often it is a sense of oppression over the upper part of the chest. It may radiate into the neck and into either or both arms, most commonly into the left arm. It may extend to the ulnar fingers. Sometimes it is, for a while, felt only at the wrist.

The tragedy of coronary occlusion is that it so frequently strikes men at the zenith of their careers. It is not especially a disease of old age. It is rare before 40, not uncommon in the fifth decade, but most frequently it strikes the patient in his fifties. While the first attack is fatal in only from 15 to 25 per cent of the cases it often results in prolonged disability. Coronary occlusion is, therefore, of increasing concern to the insurance companies. On the other hand, it is encouraging to note that coronary occlusion is not fatal nearly as often as was formerly thought. Myocardial scars, resulting from coronary occlusion, are often found postmortem without a history of attacks in the past, and with increasing knowledge of the condition it is becoming clear that many mild attacks of coronary occlusion were erroneously diagnosed in the past. While there is a distinct tendency to recurrence, the interval between first and subsequent attacks is sometimes considerable, fifteen years or more. Therefore, though the prognosis of coronary occlusion is always serious, it is by no means as grave as was formerly thought.

The treatment of coronary occlusion is simple though it is difficult to resist the temptation to do too much for the situation is usually dramatic enough to invite vigorous action. Full doses of morphine sulphate sufficient to render the pain bearable should be given. Absolute rest and careful nursing complete the treatment of the acute attack. The immediate prognosis must always be guarded for the severity of the pain bears no constant relation to the extent of myocardial damage. Convalescence requires six weeks for this is the period which must pass before healing and scar formation are completed. It is customary to enjoin bed rest for the first three to four weeks; during the last

two the patient is gradually returned to some activity. He will usually do better if he is kept under the influence of a mild sedative (elixir of sodium bromide dr. 1, t. i. d.). The nutrition of the heart muscle is supposedly benefited by glucose given as fruit juices or, if need be, intravenously. The lungs should be carefully watched; if they show evidence of congestion pneumonia may be averted by the use of CO₂ inhalation as in surgical cases. Digitalis should be used only when it is definitely indicated for congestive failure or for rapid auricular fibrillation. In routine use, it is feared its stimulating effect on the myocardium may encourage cardiac aneurysm or perhaps even rupture of the heart. Coronary dilators such as aminophyllin are often employed in the hope that they will encourage coronary dilatation, but their effect is uncertain.

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MATERNAL WELFARE

WITH SPECIAL EMPHASIS ON PROBLEMS
IN MISSOURI

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So many elaborate presentations on the subject of maternal welfare have been made that it is difficult to evolve new ideas or produce something interesting. The very breadth of the subject and the wide range of the peculiarities in maternal welfare problems almost preclude the possibility of speaking in generalities.

Since the beginning of civilization there have existed varying degrees of interest in maternal welfare but until the last quarter century such enthusiasm has been only sporadic and more or less subdued with the idea of propriety preventing open discussion. Recent emphasis had its origin in lay organizations. The establishment of birth registration areas and the more efficient means of collecting statistics have more or less intensified lay interest in death rates. Then, too, large cities, particularly New York and Chicago, began to evolve systemized plans for the reduction of maternal mortality. Next in turn, the state boards of health became active and subsequently organized medicine took up the challenge. This delay on the part of organized medicine is scarcely a creditable showing.

Two general factors are responsible for the more or less recent intensified interest in the subject: First, some recent statistical comparison of the mortality rates of several of the more important nations which have led to great confusion; second, enterprises through lay magazine writers and by radio speeches have overdrawn the true situation. The one so closely

following the other accentuated lay and medical interest alike.

To return to the comparison of statistical studies of the different nations is scarcely illuminating. On the face of it, a Scandinavian woman, who comes to this country as an immigrant, would double her dangers in bearing children by living in the United States. Such, actually, is not the truth. It is the method of collecting data. Mortality rates are based upon a unit of one thousand live births. That seems simple until it is discovered that different countries have different assignments for the same condition: e. g., while ectopic gestation and abortion are considered maternal deaths in some countries, they are not in others. Again, puerperal insanity and pneumonia during pregnancy are assigned irrespective of the pregnancy in some countries, while in others they are assigned as maternal deaths irrespective of the intercurrent condition that may have caused the death. In fact, the definition of a live birth actually differs in the various nations. Thus is seen the futility of wide comparison until a more universal standard is established.

As to the industrious efforts of various periodical magazines and radio program activities, one may select for example the article by Paul DeKruif on the subject of "Why Should Mothers Die?" appearing in the 1936 March and April issues of the *Ladies' Home Journal*.¹ While there is no attempt to detract from the actual value of these articles, I am of the opinion that unexpected reactions have also occurred through the establishment of overdrawn fears and dangers in the eyes of the lay woman. Recently the Edinburgh Obstetrical Society objected to the use by so many medical and lay journals of the following phrase, "at least one half of the maternal deaths occurring in this country are preventable." Such statements are being characterized by that organization as "most demoralizing and depressing upon the lay public."² Whether intentional or not, the process of parturition in the mind of the lay woman is gradually being transferred from that of the natural physiological process into the category of serious major surgery.

This assemblage of the Missouri Public Health Association is for the consideration and discussion of problems that are peculiarly those of Missouri. It is quite necessary that it be understood that in the matter of maternal mortality so many factors are involved that it is difficult to set up a fair standard for all sections of the State, or to propose a program that can be utilized by all sections of the State. It is a well-known fact that aside from sporadic efforts, such as the work of the American Legion, there has been no special interest in maternal

welfare in Missouri until the consideration of the Social Security Bill. It would seem now, however, that there is the greatest concentration and development of the layman's organizations, city health authorities, the State Board of Health, and the medical profession that has ever before been in evidence. These agencies with the guidance and assistance of the Children's Bureau have developed the nucleus of a plan for the state, which should properly be designated as The Missouri Plan for Maternal Welfare and Child Care. Such limitation of title is obvious by reason of conditions varying so greatly in each of the different states.

CLASSIFICATION OF MATERNAL DEATHS

A classification of maternal deaths and the comparison of the percentages for the State of Missouri for 1933 with those of the Birth Registration Area for 1934 is shown by the following table.

Table 1. Causes of Maternal Deaths^{3,4}

	Area of Birth Registration (1934)	State of Missouri (1933)
	Per Cent	Per Cent
Puerperal sepsis	40	47
Toxemias of pregnancy	23	20
Hemorrhages	12	11
Miscellaneous	25	22
Total	12,859 deaths	298 deaths

It is not out of place to briefly review here conditions in Missouri as they now exist.

1. Although two large cities are within the boundaries of the state, the percentage of slum population is relatively low. In these sections it is fair to assume that there are adequate facilities and sufficiently trained men to care for the pregnant woman. Their problem is mainly education and obtaining satisfactory living conditions.

2. In the relatively small mining areas of the state there is a large population of foreign extraction whose needs are not only educational but adequate medical attention and facilities.

3. Geographical locations with respect to the two large rivers, the Mississippi and Missouri, give the state an unusual amount of river frontage. As difficult as it may be to explain, there is nevertheless an appreciable part of the state's population living along the river banks and lowlands that contribute to mortality out of proportion to their number. Education is their main problem; but, in view of them being so transitory and nomadic in type, any effort in this respect is quickly lost by the changing constituency. Their further problems are inadequate medical equipment, and insufficient medical attention.

4. The colored population of the state is also a problem. While only twenty-seven of the

298 maternal deaths in 1933 were colored, a little more than 10 per cent, they were strikingly localized in the southeastern section of the state, except for the large cities.

Table 2. *Mortality Among Whites and Negroes*^{3,4}

	(Rate per 1000 live births)	
	White	Negro
Area of Birth Registration (1934)	5.4	9.3
State of Missouri (1933)	4.9	7.8

The solution of the situation is not only one of education but of all the groups the necessity for medical attention is the greatest in this one. Colored people have difficulty obtaining the services of a physician.

5. There comes to one's mind the mountainous or more or less isolated areas of the south central section, but upon investigation one may be surprised at the existent low mortality rate therein. This is true in spite of inadequate medical facilities and a dearth of medical attention. It would suggest that the essentials of life are the most important; e. g., fresh staple foods, good water, ample exercise and a tendency to "let Nature take its course," particularly with relation to childbearing.

6. The remaining population of the state is that type which is best provided for of all as to hospitalization and medical attention; viz., the better-to-do agricultural classes and the better group of urban dwellers. The unexpected mortality in this group could possibly be explained by three factors:

First, with their economic surroundings it is not necessary to be one of the fittest in order to survive, but such heritage cannot reproduce without its attendant mortality.

Second, a percentage are members of cults.

Third, among this group is a great demand for the complete alleviation of all pain and inconvenience related to pregnancy and labor. The lure of the bait may occasionally entice the physician beyond the realm of sound judgment.

MATERNAL MORTALITY IN MISSOURI

Then comes the question, "What Is the Permissible Mortality Rate for the State of Missouri?" That, of course, can only be a matter of conjecture. The following table shows the maternal mortality rate of the Birth Registration Area for years 1923 to 1932, inclusively, and the State mortality rate for the years 1924 to 1933, inclusive.

Considering the conditions enumerated above, it is the author's opinion that under present conditions the mortality rate probably could be brought to the neighborhood of 5 per 1000 live births with concentrated effort. Furthermore, until there are perceptible changes in the present physical conditions, as well as modification of nomenclature, it is almost impossible to expect a maternal rate of less than 3½ per 1000 live births.

Urban maternal mortality rates are consistently higher than rural rates. The Children's Bureau³ in allocation of deaths according to residence found in 1934 that 28 per cent of the urban mortality could be allotted to the rural districts. It is only right that a percentage of difficult cases in rural districts should be sent to urban hospitals and consultants. In practice, however, occasional resentment is aroused because of some ill-advised procedure executed before the patient is eventually sent to the consultant.

RECOMMENDATIONS

Being mindful of the premises above enumerated it is entirely in order to discuss specific proposals for improving the conditions as now exist.

1. It is necessary to keep in mind that at the present moment there is the greatest coordination of all agencies involved in this question that has ever existed before in this state.

2. It is necessary that each of these several agencies should continue to survey the field in order to bring out new problems for consideration and solution, or interest in the whole project will immediately wane with respect to the particular agency. A definite educational program for the public is essential.

3. It is manifestly unfair to minimize the efforts of the few sporadic attempts because, as previously pointed out, the problem is more than one of a local affair and requires a state-wide program backed by numerous resources.

4. It is to be remembered that it not only takes experts to collect data but it also requires authorities familiar with the problems to interpret assembled data. Articles appearing in lay periodicals or even medical journals, as well as subject matter heard on radio programs, could well and profitably be referred to such authorities and experts for proper evaluation before their presentation.

Table 3. *Maternal Mortality*^{4,5}

	(Rate per 1000 live births)										
Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Area of Birth Registration	6.65	6.56	6.47	6.55	6.47	6.92	6.95	6.73	6.60	6.32	
Missouri		5.61	5.38	6.14	6.32	6.40	6.88	5.77	6.86	6.14	5.16

5. It is necessary to build up the well-established relationship of the health in childhood to later adult life which is so clearly mirrored in efforts at reproduction. As for example, an attack of scarlet fever, mumps or pneumonia near puberty may result in dire consequences from the standpoint of successful parenthood later. Striking the individual at a time when the greatest development of the reproductive apparatus is under way may lead to its derangement or permanent blight.

6. The scope of training in childhood relative to eugenics, venereal diseases and reproduction in general should be enlarged perceptibly. Both home training and the school curriculum should be brought up to date in this respect.

7. The mode of life of the expectant mother should be protected. It is for the epidemiologists to see that she is protected against influenza, scarlet fever, etc., equally as she is against diphtheria, smallpox and typhoid. Furthermore, she must be protected as to necessary physical exercise or over-exertion in sustaining herself financially during her gestation period. Likewise, and perhaps of greater importance, is the necessity of proper food and sunshine.

8. Marriage certificates should be issued only to those holding bona fide health certificates.

9. The importance of prenatal care is constantly needing emphasis. Dr. Catherine Gill significantly observed after a large study of British maternal mortality statistics that "one of the most striking points in connection with the above figures is the comparatively low mortality rate recorded among those mothers who are antenatally supervised when contrasted with those not so supervised. A somewhat similar and striking comparison is afforded year by year."⁶

10. Provision should be made for specified agencies or committees to pursue and investigate each maternal death carefully, not with the idea of finding fault but in the hope that something could be found which might be eliminated in future similar situations. This would be a means, too, by which death from abortion could be segregated from those of accidental causes. Although apparently remote in connection, maternal mortality and morbidity are higher in subsequent pregnancies after either an induced or spontaneous abortion than in a series of women who have not been so victimized. Dr. James Young of Baltimore recently made a significant pronouncement: "I wonder, if as obstetricians, we have been sufficiently vocal in regards to the terrible havoc which practitioners of an illicit art are responsible for spreading throughout our towns."⁷

11. Not only is it necessary that the medical

profession assume the leadership in a state-wide program, but it is necessary that this leadership be placed in the hands of those that are aggressive and sincere.

12. The type of medical care can be improved.

13. The midwife situation is a problem needing attention.

14. Postgraduate facilities must be more accessible.

Here I wish especially to refer to that part of the so-called Missouri Plan for Maternal Welfare and Child Care that is now in operation. A full-time, well-trained expert in each of the fields of obstetrics and pediatrics is now holding "refresher courses" over the state. The assumed importance of this postgraduate work is indicated by virtue of its being established by the collaborators as the spearhead for the Missouri Plan. The true value of such postgraduate work can be realized only when one is mindful of the fact that an appreciable number of physicians over the state have so few cases in their own practice that they not only fail to develop creditable skill but actually fail to hold their former abilities. Likewise, this postgraduate work must be afforded them with small expense because the income to many physicians from obstetrical work would total scarcely enough to pay for their going to some recognized center for lengthy instruction. The Missouri Plan does this.

15. Among physicians a practice of freer consultation in cases that are abnormal should not only be developed but, also, the layman should understand his rights to that privilege. A further procedure of value should be the recognition of properly designated consultants for certain given areas. Hereby the danger of calling a physician who indulges in orgies of surgical interference would be considerably obviated.

16. A birth certificate should record the type of delivery for each case; thereby public record could be had of the procedures performed at the delivery. Such a record doubtlessly would deter an impatient hand at times and, no doubt, contribute a portion toward improving maternal mortality.

Again, I wish to digress in order to point out that under the Missouri Plan such a certificate is now in the process of being printed and will soon be available for use.

17. And finally, but not least, is the necessity for reaching those individuals in the profession who need the postgraduate instruction the most. Repeatedly carefully prepared presentations are read before various obstetrical societies and other well organized medical groups, but so rarely do those physicians who

need it most seem able to attend. Some plan must be evolved to reach this group.

CONCLUSION

In conclusion, I wish to repeat that greatest progress in the Missouri Plan will not come from comparison with other nations, or even other states, but by careful survey and study of situations in Missouri which occur indigenously and can be solved only by special solution with the facilities at hand.

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TUMORS OF THE HEAD AND NECK

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I am grateful for this invitation to discuss a few factors of interest both from the standpoint of diagnosis and treatment of tumors as they occur on the head and neck. Time will be ample only to emphasize those points which to my mind seem most salient in improving morbidity and mortality in this group of cases. Perhaps some of my statements will seem dogmatic but only because they be necessary for emphasis and brevity. Throughout you will note an appeal for early diagnosis and adequate treatment. This is more important in some types of tumors than others and in some parts of this region of the anatomy than others, but in all it means greater possibility of cure with less major means of ablation necessary.

The majority of primary tumors of the skin of the head and neck are basal cell carcinoma (the rodent ulcer). These do not metastasize and they do not occur on mucous membrane. Clinical diagnosis is not possible in all cases. The microscopic picture is characteristic. Some of these lesions, especially if of some duration or if they have been inadequately treated or, let us say, stimulated by caustics, etc., will change into a squamous cell carcinoma. Some will be a mixture of basal and squamous cell carcinoma from the beginning. Radium, roentgen ray, knife excision and cautery excision are effective means of destroying these lesions. The zone of metastasis will depend upon location of the primary tumor in relation to the lymphatic

drainage zone. And of course the question of metastasis arises only in the squamous cell carcinoma.

Secondly, I wish to discuss malignancy of the oral mucosa and the lower lip, a mucosal skin region. In that the majority of primary malignant tumors in this region are squamous cell carcinoma, I shall confine my remarks to that type. I do not believe there is any part of the body in which the establishing of an early diagnosis is so essential as in carcinoma of the mouth, viewed from the standpoint of both morbidity and mortality. Clinically, carcinoma of the mouth falls into two distinct groups from the causative, therapeutic and prognostic standpoint.

In the first group are those cases with leukoplakia of a few months to years of duration which now present a definite hard infiltrating carcinoma. Most of these occur on the buccal surface. A majority of them grow slowly, metastasize late and are of low histologic grade. They comprise about 10 to 15 per cent of any large series. These are most amenable to surgical ablation; knife, actual cautery or diathermy may be used, the actual choice to be made depending upon circumstances in each individual case. Adequacy of removal is the prime factor. There may be no metastasis to regional lymph nodes in these cases even in lesions involving the entire surface of one cheek and with extension to the overlying skin. Thus I do not recommend a routine lymph node resection of the tributary zone in all these cases. At this point I wish to emphasize that oral hygiene is a factor in the lymph adenopathy in many of these cases. Dental prophylaxis may not only cause the subsidence of an adenopathy, but may be a definite factor in allowing healing of the defect following removal of the primary growth of the mouth. Radiation, either beta or gamma in type, has proved to be disappointing in the treatment of this group of lesions. In this group of cases with and without lymph node resection we obtain as high as 50 per cent five years or longer survivals without recurrence or metastasis.

In the second group we may include, for simplicity of discussion at least, all other carcinoma of the oral cavity and of the pharyngeal mucosa. In this group early diagnosis and adequate treatment are particularly significant. I do not believe there is any part of the body in which both from the standpoint of morbidity and mortality an early diagnosis and adequate treatment offer more, in fact the only hope. Biopsy with histologic examination is essential to the establishment of a diagnosis in many of these early lesions.

The radon seed and the removable highly

filtered radium needle have largely supplanted excision or immediate destruction of the local lesion except when bone is involved or is contiguous so that a periostitis or necrosis, which is painful, is probable from radiation. However, with the advent of heavier filtration of radium, and the use of greater voltage, more heavily screened and divided dosages of roentgen radiation, this has become less of a contra-indication also.

Removal of the tributary lymph bearing tissue, the use of radium element and emanation and deep roentgen ray therapy alone and in combination, are invaluable also in the treatment of advanced carcinoma of the mouth with metastasis to the lymphatics of the neck. Alleviation of pain and discomfort, restitution to previous social value for varying periods of time and even years of worth while survival may be accomplished by this means. However, let me emphasize that early diagnosis and adequate treatment of the early malignancy offer much the greater premium because even the moderately advanced case, particularly in the posterior region of the mouth, metastasizes relatively early and to the jugulodigastric zone of lymph bearing tissue, the surgical removal or the gamma radiation of which has not markedly increased the longer time survivals. In other words, our greater hope with present day methods lies in obtaining and adequately ablating these lesions before metastasis has occurred.

Malignancy of the lip occurring in the mucocutaneous region is squamous cell carcinoma. It is the metastasizing type but for the most part is a late metastasizing growth as compared to the larger group that occurs in the mouth. The great majority are of the lower lip. The first zone of metastasis is to the suprahyoid lymph bearing tissue of the neck. The removal of this group of lymphatics is a standard surgical procedure with low risk and perfectly good cosmetic and functional result. A goodly percentage of these cases does not require the neck dissection, the selection of cases to be based on factors such as character and probable duration of primary lesion, probability of close and repeated follow-up in the particular case, etc.

As to the treatment of the primary lesion, surgical excision, radium, or roentgen ray may be used, the type of treatment not being so important as that adequate removal or destruction be accomplished with the best functional and cosmetic result in the particular case.

Just a few words about malignancy of the bony structures of this region, particularly the mandible and maxilla. The radiograph is indispensable in determining the presence of the

early destructive lesion and in differentiating this from a benign process. Pain, tenderness or soreness in the presence of viable teeth or an edentulous alveolus are the early symptoms. Repeated radiographic study or exploration, biopsy and frozen section may be necessary to establish a diagnosis. Resection of the bony structure with or without tributary lymphatics is the treatment of choice, the exact procedure in the given case being governed by the particular conditions existing.

As to tumors of the alveolar processes, it is not difficult to differentiate the crateriform ulcer with an irregular edge or the cauliflower mass with destruction of tissue as malignancy from the classical epulis. This can be done by inspection and palpation. However, the problem of differentiation of the small area of ulceration or tumor formation is more difficult, and is even more important. Such conditions of the alveolar mucous membrane may require the use of all of our diagnostic procedures in establishing a diagnosis. Palpation with the finger is a valuable aid; by it can be determined the presence of induration. This is a hardening or increase of resistance to the palpating finger. Inflammation, both specific such as syphilis or nonspecific in type, produces induration but not of the degree and extent malignancy does. Biopsy may be necessary to establish a diagnosis and with the greater number of early lesions seen the greater number of biopsies will be necessary. It is only by histological examination of the biopsy specimen that malignancy can be diagnosed early in many of these conditions. In securing a biopsy it is important to obtain it from the active border of the lesion, as the central defect or superficial portion of the lesion may be only granulation tissue which in such a condition is merely secondary.

In all tumors of the alveolus a definite diagnosis must be made before treatment is instituted, whether it be by medication, radiation or surgery. It is impossible to treat a condition properly unless a definite diagnosis has been established. The applying of medicine, caustic or otherwise, the use of radium or roentgen ray as treatment, or the removal of such conditions, may confuse the findings and disturb the anatomy of the part so that proper treatment will be definitely compromised in its institution.

Another group of tumors or tumefaciens which is important and does occur on the alveolus, is leukoplakia. This white asbestos-like, patchy lesion on the alveolus in most cases is an extension from a similar and more extensive process on the buccal mucosa. When recognized early this condition will respond to

cessation of smoking in the particular individual, correction of oral hygiene, prophylaxis of teeth, correction of an occlusal deformity, repair or extraction of sharp and jagged teeth or some such measure. The leukoplakia on the alveolus should immediately prompt a careful examination of the whole mouth. There may be present in that mouth an area of thickened leukoplakia, one that can be palpated with the examining finger. This requires definite treatment, particularly if fissuring is present. Surgical removal or destruction with histological examination is usually necessary in such conditions.

The importance of establishing whether a lesion in this group is benign or malignant may be further appreciated by a short discussion of treatment and prognosis. We may divide these tumors into three groups from this standpoint, i. e., the benign, locally malignant and malignant. The benign lesion, such as the papilloma or the alveolar cyst, is cured by simple removal. Histological examination must be made of these specimens to substantiate the clinical and gross diagnosis. The locally malignant lesion such as the adamantinoma requires extensive local removal; it invades locally but does not tend to metastasize. Early recognition and adequate treatment of such a lesion is important not only from the standpoint of greater possibility of cure or less probability of recurrence at that stage, but that this cure can be obtained with much less destruction or removal of tissue. The malignant lesion such as squamous cell carcinoma requires not only adequate treatment of the local lesion by surgery or radiation, or both, but the zone of metastasis (the tributary lymphatics) must be considered in the treatment of these lesions. The earlier the lesion is recognized and destroyed the less is the probability that the lymph bearing tissue need be resected. This emphasizes the point that these patients are entitled to careful observation, not only of the local area following the destruction of the lesion, but also of the zone of metastasis and, in this particular case, the lymph bearing tissue of the neck.

Lastly, I wish to discuss briefly primary lymph node malignancies of this region, particularly Hodgkin's disease and lymphoblastoma. Again biopsy may be necessary to establish a diagnosis. Gamma radiation in the form of deep roentgen ray or radium pack is the preferable method of treatment. Real prolongation of useful life is possible by these methods in these cases.

In conclusion, I have discussed only some of the malignancies of the head and neck, those which I thought more important and representative, to emphasize the importance of early

diagnosis, adequate treatment and their relationship to prognosis. By these means at hand today we obtain in large groups of cases five years or more survivals free of recurrences such as 75 per cent in malignancy of skin, 60 per cent in malignancy of lip, 15 per cent in malignancy of the mouth. Disregarding, however, the great factor of morbidity, these survival percentages can be greatly increased, especially in the case of malignancy of the mouth, by earlier recognition and adequate treatment at that time. That, of course, resolves itself into getting the patient to come to us early with the lesion and to establish diagnosis and institute proper treatment at the earliest practical time thereafter.

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SYPHILIS AND PREGNANCY

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The most comprehensive studies in the treatment of syphilis during pregnancy are found in the reports of McCord¹ and of the Cooperative Clinic Group.² McCord's experience in observing 2150 pregnant syphilitic women over a period of twelve years is authoritative. The end result of only 3 per cent disastrous termination in term pregnancies receiving good treatment is excellent. The reports of the Cooperative Clinic Group and the United States Public Health Service cover in detail 922 pregnancies. Here also, the adequately treated syphilitic pregnant woman is seen to have an excellent opportunity to deliver a nonsyphilitic baby.

In a preliminary report from the Washington University Clinics³ the obstetrical division of the venereal dispensary was discussed. The favorable results attained in this division warrant a review of the work being done in this unit.

As a part of the general obstetrical work-up a blood Wassermann is taken on every entry at the time of her first visit. Those patients who have any degree of positive serology, known old syphilitics, congenital luetics, women whose husbands are known syphilitics but they themselves are Wassermann negative and all patients who from history or physical examination may be suspected of being syphilitic are referred to this obstetrical unit in the Venereal Clinic. Here another history is taken, a complete physical examination is made, the serological tests are repeated and if the diagnosis of syphilis is confirmed the patient is classified for treatment.

From the Department of Obstetrics and Gynecology, Washington University School of Medicine, the St. Louis Maternity Hospital, Barnes Hospital and the Washington University Clinics.

The staff in this unit is a permanent one composed of the author, a senior and a junior medical student and a nurse. The rooms utilized for this work are adjacent to the treatment rooms of the General Venereal Clinic. Treatment is administered by the regular staff of the treatment division of the clinic.

Each patient is interviewed by the prenatal observers every week prior to administration of treatment. The blood pressure is taken and the urine is examined each week and such prenatal examinations as are necessary are performed when indicated. Thus the syphilitic pregnant patients receive prenatal care and antisypilitic treatment at the same clinic visit. The patients tended in this unit are registered one hour earlier than the general clinic patients so that they may be interviewed and referred for treatment prior to the rush of the clinic at large. It is felt that adherence to these details is important toward maintenance of a high degree of co-operation on the part of the patient and satisfactory clinic attendance. The available time for treatment of this group of syphilis is naturally limited. Too many of them present themselves for care late in pregnancy anyway, and every means available to curtail lax attendance should be observed. In our clinic, the weekly attendance is approximately 90 per cent of those registered. This is most satisfactory considering usual clinic percentage attendance. A large measure of success is attributable to the aid of the social service department in following these patients.

A majority of the patients in this series are delivered in the St. Louis Maternity Hospital or by the outpatient obstetrical service. A cord blood Wassermann and a maternal Wassermann are taken at the time of delivery and the placenta is saved for microscopic examination as a routine procedure. The mother is instructed antepartum and postpartum about the importance and necessity of bringing the baby to the dispensary at three months of age for physical and serological examination. The aid of the social service department is invaluable in this follow-up régime.

For the purpose of this study only those babies who were available for examination at three months of age are included. Due to the difficulty in following these patients for any length of time, this check-up at three months is usually the only one available. In the few cases where a one year check-up is available or when the patient returns with a subsequent pregnancy there has been no difference between such examination and the original three month examination. A baby is considered normal and nonsyphilitic if it demonstrates no physical or

serological evidence of syphilis at three months of age.

INCIDENCE

From the inception of this unit on November 1, 1931, to January 1, 1936, there were 4700 admissions to the obstetrical division of the Washington University Clinics. Syphilis was present in 109 of the 3245 white women and in 213 of the 1455 Negro women. Thus the incidence was 3.35 per cent among the white and 14.64 per cent among the Negro women. The general incidence of syphilis in the entire obstetrical clinic was 6.85 per cent (table 1).

Table 1. Incidence of Syphilis in the Prenatal Clinic

November 1, 1931, to January 1, 1936			
	White	Colored	Total
Total prenatal admissions	3245	1455	4700
Syphilitic admissions	109	213	322
Percentage incidence of own race	3.35%	14.64%	....
Percentage incidence of total	2.32%	4.53%	6.85%

In this four year span there were 322 women referred to this unit for observation and treatment. Table 2 presents an analysis of the entire

Table 2. Analysis of 322 Syphilitic Mothers

Questionable Syphilis	39
Lost from Series	56
No Treatment	38
Minimal Treatment	107
Moderate Treatment	72
Excellent Treatment	10
	322

series. It will be noted that only 189 of the original 322 received treatment and are available for statistical study. Each group will be discussed in greater detail below.

QUESTIONABLE SYPHILIS

In the series there were thirty-nine patients in whom the diagnosis of syphilis was doubtful. These patients demonstrated either a weakly positive Wassermann, a negative Wassermann with a questionable history, or a negative Wassermann with history of syphilis in the husband. Fifteen of these cases were omitted because of inability to trace the baby at three months of age. Of the remaining twenty-four patients, the diagnosis of "doubtful" syphilis was confirmed by a 100 per cent incidence of normal, living children.

The procedure with this group of patients has been to discuss with the patient the possibilities of her individual case. Contrary to the general plan of insisting that treatment be taken, these patients are advised to take treatment but such a procedure is not insisted upon because of our belief that these particular patients are not syphilitic. Only eight of the twenty-four patients received treatment, yet all had normal children. This would indicate that this group was well classified and that probably none was syphilitic.

LOST PATIENTS

For accuracy, all patients whose babies were not available for a physical examination and blood study at three months of age were deleted from the statistical summary. There were twenty-five such patients who were observed, treated and delivered under our observation but who could not be traced after three months. In addition, there were ten patients who disappeared while under treatment; fifteen patients who did not return for treatment after the first or second visit to the dispensary and six patients who were dismissed or transferred to municipal clinics.

Thus there was a total of fifty-six patients who were eliminated from this study for the above mentioned reasons.

HISTORY OF INFECTION

Only eighteen of the 322 patients in the entire group gave a history of primary or secondary syphilitic lesions. The local genital lesion of syphilis is usually painless and unobserved by the patient; so that when a diagnosis is made by serological means it frequently comes as a surprise to the patient.

Such a 5.8 per cent incidence of a definite history of infection emphasizes the necessity of a routine blood test as part of every prenatal examination.

TREATMENT

A course of treatment is outlined for each patient as soon as she has been referred to us for care and after the diagnosis of syphilis has been confirmed, if there are no physical contraindications to such a régime. The consensus of opinion from the literature and from our own experience is that intravenous arsenical medication acts more quickly and more satisfactorily than intramuscular bismuth or mercury injections. We must realize that the actual time available for treatment of a pregnant syphilitic is limited to the remaining weeks of gestation. Therefore, whenever possible, we begin treatment with arsphenamine. If time permits, the course of treatment for the individual is arranged to start and finish with arsphenamine, intramuscular injections being given between courses of arsenic.

Old arsphenamine is available in this clinic and such medication is preferred when tolerated. Our experience indicates that such therapy is tolerated quite as well as neoarsphenamine. Arsphenamine is given in series of ten to twelve weekly injections, gradually increasing the dosage from 0.2 gm. to 0.3 gm. These seemingly small doses are preferred because it has been our experience that larger doses are not tolerated over a period of twelve weeks.

Should arsphenamine not be well tolerated the various other preparations, neoarsphenamine or mapharsen, are utilized. Should these not be tolerated, bismarsen is given intramuscularly. Every effort is made to maintain arsenical therapy if possible.

The last one or two intravenous treatments are accompanied by an intramuscular bismuth injection. This overlapping tends to avoid a period of time during which active medication is lacking. At present, we are using iodobismitol or bismocymol in doses of 1.5 to 2.0 cc. at weekly intervals. These injections are continued for from six to ten weeks depending on how much time is available for further arsenical therapy.

A patient is considered to be adequately treated when she has received more than ten intravenous treatments and more than ten intramuscular injections. Moderate treatment is considered to be ten or more of either arsenical or bismuth but less than ten of the other. Minimal treatment is less than ten of each.

NO TREATMENT

In this group were thirty-eight patients who received no treatment during pregnancy. The small number of patients in this group renders a statistical survey entirely inadequate because of the high incidence of late or latent syphilis. There was a 30 per cent incidence of disastrous termination of pregnancy in this group. Of interest was the observation that the only two patients in this group who were classified as early syphilis terminated their gestation disastrously.

MINIMAL TREATMENT

By minimal treatment we refer to less than ten intravenous arsenical treatments and less than ten intramuscular bismuth or mercury injections.

Most patients present themselves to the dispensary at a late period of gestation. Therefore, the largest group of patients studied falls into this class of minimal treatment. Referring to table 3 it will be noted that this observation is verified. Only eighteen of the 107 patients in this group presented themselves early enough for treatment to be started before the twentieth week of gestation.

The incidence of disastrous termination of pregnancy, apparently paradoxically, was higher when treatment was begun early. However, the explanation of this observation undoubtedly lies in that this is a very small number of patients for statistical summary and that treatment of these eighteen patients was extremely sporadic.

Table 3 demonstrates that 76.6 per cent of the patients receiving minimal treatment bore

Table 3. *Minimal Treatment*
Less than 10 Arsenicals. Less than 10 Bismuth

Result of Pregnancy	Treatment Begun Before 20th Week		Treatment Begun After 20th Week		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Alive and non-syphilitic	12	66.7	70	78.6	82	76.6
Disastrous termination	6	33.3	19	21.4	25	23.4
Total	18	100	89	100	107	100

living and nonsyphilitic children. This is a slight improvement over the group of patients who received moderate treatment.

In this category are classified those patients who received ten or more treatments of either the intravenous arsenical or intramuscular bismuth or mercury type.

In order that the study of this group might be more valuable the patients are separated into those receiving ten or more arsenical but less than ten bismuth injections and less than ten arsenicals and more than ten bismuth injections.

Table 4 demonstrates the results attained in this group. Due to the relatively small number of patients available for study no attempt was made to subdivide this group into subgroups depending on whether treatment was begun before or after the twentieth week of gestation. This chart demonstrates clearly that a progressively increasing amount of treatment results in a larger percentage of favorable termination. It also demonstrates that intravenous arsenical therapy is superior to intramuscular bismuth injections.

Examination of the "total" columns of tables 3 and 4 demonstrates the importance of the amount of treatment administered. In 76.6 per cent of the pregnancies where less than ten treatments were administered, termination was satisfactory, whereas 94.4 per cent satisfactory terminations are noted when more than ten treatments are given.

Table 4. *Moderate Treatment*

Result of Pregnancy	Less than 10 Arsenphenamine. More than 10 Bismuth		More than 10 Arsenphenamine. Less than 10 Bismuth		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Alive and non-syphilitic	19	86.3	49	98.0	68	94.4
Disastrous termination	3	13.7	1	2.0	4	5.6
Total	22	100	50	100	72	100

Table 5

Baby Cord Blood Wassermann Reaction	Mother's Blood Wassermann					
	Negative		Positive		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Negative	31	96.8	68	63.5	99	71.2
Positive	1	3.2	39	36.5	40	28.8
Total	32	100	107	100	139	100

MAXIMUM TREATMENT

This group comprises those patients who received more than ten arsphenamine treatments and more than ten intramuscular bismuth injections. Obviously, such patients must be available for twenty or more consecutive weeks of treatment. Relatively few such patients are available in dispensary practice. In this series only ten patients received such maximum treatment. One gestation terminated disastrously, a neonatal death.

WASSERMANN REACTION OF MOTHER AND CHILD AT BIRTH

As routinely as possible, cord blood and maternal blood specimens are taken for serologic examination.

Table 5 shows that in thirty-two syphilitic women with a negative Wassermann reaction at the time of birth of the child, 96.8 per cent of the children also had negative cord blood Wassermann reactions, while of 107 Wassermann positive mothers only 63.5 per cent had a negative reaction.

However, the negative Wassermann does not mean that such babies are necessarily syphilis free. Table 6 depicts the relationship of cord blood Wassermann taken at birth to the Wassermann taken at three months of age. Of the negative cord blood Wassermann tests, 97.8 per cent remained negative at three months of age. It is extremely interesting to note also that only 10 per cent of the positive cord blood Wassermann tests remain positive at three months of age.

Table 6

Baby 3 months Wassermann	Cord Blood Wassermann					
	Negative		Positive		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Negative	89	97.8	36	90.0	125	95.4
Positive	2	2.2	4	10.0	6	4.6
Total	91	100	40	100	131	100

These tables indicate that a negative cord blood Wassermann is not absolute proof of freedom from syphilis; also that a positive cord blood Wassermann is of even less value toward prophesying subsequent developments. All such children should have repeated examinations, physical as well as serologic, for at least three months to a year before being designated as syphilis free.

SUMMARY

1. Every pregnant woman should have a blood Wassermann taken at the time of her first visit.

2. Intensive antisyphilitic treatment should be instituted as soon as a diagnosis of syphilis has been confirmed.

3. When the diagnosis of syphilis is doubtful, treatment should be advised as a prophylactic measure.

4. The patient should understand her condition clearly. Her cooperation is absolutely essential to successful completion of an efficient and adequate course of therapy.

5. Treatment consists of weekly arsphenamine or neoarsphenamine injections in series of at least ten treatments. The last few intravenous injections are overlapped with intramuscular bismuth injections, which are then continued for six to ten weeks, followed by a return to arsphenamine.

6. When time does not permit an adequate course of treatment, the drug of choice is arsphenamine, given at weekly intervals, for the remaining duration of pregnancy.

7. Treatment is continuous without rest periods from the time of diagnosis until delivery.

8. An intensive follow-up of the new-born should be instituted for at least three months and preferably for a year.

9. In this clinic a centralized unit, where prenatal observation is made at the same time that treatment is administered, has proved satisfactory. Attendance has been better and the amount of treatment administered per patient has been greater.

10. Under our care patients who receive a moderate amount of treatment have almost a 95 per cent opportunity of delivering a living, normal, nonsyphilitic child.

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PERNICIOUS ANEMIA

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KANSAS CITY, MO.

During the first two years following the introduction of liver extract in the treatment of pernicious anemia there was a decline of 40 per cent in the mortality rate, according to the statistics from the Department of Commerce for the registration area of the United States. Since that time there has been a gradual increase in the mortality rate which at present is about 75 per cent of what it was prior to 1926. The question naturally arises as to the cause of this increase. There has been considerable discussion of this, some writers going so far as to question whether liver does any good, especially in the cases with spinal cord involvement. I am sure that we all have seen the marked benefit derived from the initial treatment and, later on, in at least some of the cases there have been relapses. The majority of these, however, have been in the cases in which liver therapy was discontinued or not properly given and the patient was not kept under supervision. This was probably the patient's fault; possibly the doctor's. A number of other factors are responsible for some of the failures.

The literature contains numerous excellent articles on pernicious anemia. A repetition of these is not necessary.

I wish to take up briefly only two points. The first is a point in diagnosis. Since liver extract has become such a common remedy, a great number of people who feel tired and easily exhausted think that their trouble is due to anemia and begin taking liver in some form. Some of these cases may be primary anemia but the majority are not. However, this probably explains why we so seldom see the typical blood picture of primary anemia that we were accustomed to observe before the days of liver therapy. The diagnosis may be difficult in some cases even before any liver has been given, and afterwards it may be quite impossible to make a positive diagnosis unless we allow the blood to relapse, which is not a desirable thing to do. For a case in which the history is suggestive, but the blood examination leaves us in doubt, we have two tests that are valuable aids. These are the reticulocyte count and the icteric index. With the exception of sprue there is no other condition in which we get the marked reticulocyte response after the administration of intramuscular liver extract, and in primary anemia the icteric index is high while in the other anemias it is low, especially in the idiopathic hypochromic anemia which is frequently con-

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fused with primary anemia. If then, in a case of anemia, there is a reticulocyte response to liver extract of from 4 to 10 per cent and a high icteric index, we are fairly safe in diagnosing primary anemia and can expect marked improvement in our patient unless there is long standing spinal cord involvement with degeneration of some of the nerve tracts. In these cases the anemia may not be of such high grade, but they should all be given intensive treatment for we are frequently surprised at the improvement they will make.

The second point is in regard to treatment. The postgraduate course given by detail men from pharmaceutical houses is not always correct. They usually advise giving the equivalent of a certain number of grams of liver each day. We should remember that with liver extract, as with insulin or digitalis, there is no set dose. The dose for any individual case is that amount which produces results. In cases showing signs of spinal cord lesions the anemia may not be so pronounced and, in order to obtain results, it is necessary to increase both the cell count and hemoglobin well above normal and maintain it at this level for several months before improvement may be manifested.

In order to obtain the best results in cases of pernicious anemia they must be kept under supervision. A careful blood examination must be made every week and enough liver extract given, either by mouth or intramuscularly, to bring the hemoglobin up to or near 100 per cent and the red count to between four and one half to five million cells. After this is accomplished, a maintenance dose must be given sufficient to hold the hemoglobin and cell count near these figures. This dose will vary in different patients. It usually requires the equivalent of from 1500 to 2100 grams weekly, if medication is given orally, while if given intramuscularly from 100 to 250 grams will usually be sufficient. After the maintenance dose has been established, blood examination should be made at least every four weeks. No rest periods from liver should be allowed. If any intercurrent infection intervenes the blood counts must be made frequently, and in all probability the maintenance dose of liver extract will have to be markedly increased. Medication should be given by mouth if possible; if not, intramuscular injections should be given. Frequently after months of liver therapy by mouth, the patient becomes tired of the treatment and often the thoughts of it will nauseate him; or again in an occasional case after prolonged treatment by mouth he fails to get results any longer and it is necessary to resort to intramuscular medication.

A good example of this is a case that came under observation in January, 1933; a school

teacher from Western Kansas, 56 years of age, whose mother had died of pernicious anemia at the age of 78. Three or four years before coming under observation the patient had become easily exhausted and her work was an effort. In the summer of 1931 she had a very sore mouth and tongue. She was advised by her doctor to have some teeth pulled and was given HCl and ventriculin. After two and one half months of treatment she was greatly improved and was told that she needed no further treatment. In the spring of 1932 she was again very tired and her sore mouth and tongue returned. This continued during the summer, and in the fall when school opened she was so weak that she began taking ventriculin and HCl of her own accord. By December of that year she was so weak that she had to give up her school. She was troubled a great deal with numbness and tingling of her hands and feet and difficulty in writing and walking.

Shortly after this she came to me for examination. At that time she had a normal temperature and pulse. The blood pressure was 164 systolic and 92 diastolic. Her mucous membranes were only slightly pale and the lips and finger nails were not suggestive of a marked anemia. The tongue was quite smooth, her heart and lungs were normal, and the patellar and Achilles' reflexes were absent. There was a bilateral Babinski that was easily exhausted. Vibratory sensation was markedly diminished. It was with great difficulty that she could sign her name. Blood examination at that time showed a hemoglobin of 87 per cent, RBC 3,520,000, WBC 5800, color index 1.1, volume index 1.2, a reticulocyte count of 1.2 per cent, platelets 12,800, icteric index 10. Gastric analysis showed achylia gastrica.

A diagnosis of pernicious anemia with early cord changes was made. Liver therapy was begun. The equivalent of 300 grams daily was given by mouth. She was also given dilute HCl acid. In four weeks time her symptoms improved enough for her to go to work. The same dosage of liver was continued. Monthly blood counts were made by her home doctor which showed a gradual improvement. In July of 1933 her hemoglobin was 96 per cent, her red cells 4,600,000. She taught school the winter of 1933 and 1934 and felt well.

In the summer of 1934 the liver became quite distasteful to her and she stopped it. Her symptoms began to return in about three months and she resumed her treatment, but taking only six capsules daily (150 grams). Her symptoms remained about the same until January, 1935, when the numbness and tingling of hands and feet returned and she began having difficulty in writing and in buttoning her clothes. She in-

creased her capsules to twelve each day and then to sixteen, but her symptoms gradually became worse. She had to stop work in March, 1935, and came back to see me May 3 of that year.

At this time she was quite pale. All of her former symptoms had returned and were more pronounced. Blood examination at this time showed a hemoglobin of 57 per cent, red blood cells 1,680,000, whites 5800, color index 1.66, volume index 1.4, reticulocytes 1.2. She was taking sixteen extralin capsules daily, the equivalent of 400 grams of liver, and she was frequently nauseated by this amount. I felt that more liver was indicated and intramuscular injections were started. She was given 3 cc. of the concentrated liver extract twice each week. After the second injection the reticulocyte count had increased to 4 per cent. Extralin capsules, twelve each day, were continued with the two injections each week. At the end of six weeks her hemoglobin was 90 per cent, RBC 4,500,000, and there was marked improvement in her symptoms. She has continued to take twelve capsules daily and one intramuscular injection of 3 cc. each week. Her last report, which was a few weeks ago, showed a hemoglobin of 103 per cent and a red count of 5,240,000. She is working and feeling very good.

It is quite apparent that this patient was not getting enough liver by mouth, or was not utilizing what she was taking. In our clinic cases we have given up oral medication. The patient too often forgets or neglects to take the capsules which often produce nausea, and when they are feeling good they often stop altogether. We have found that they can be controlled better by coming in once each week for treatment. From 3 to 5 cc. of the concentrated liver extract each week will control the vast majority of the cases. In a large clinic it is also decidedly less expense to give the intramuscular liver than the capsules by mouth. In addition to the liver we give all patients dilute HCl acid, from 6 to 8 drams daily, if they will tolerate it. If it is given in orange juice, sweetened, very few of the patients complain about it.

1032 Professional Building.

Wilbur Bailey, Los Angeles (Journal A. M. A., Jan. 23, 1937), stresses the fact that the chief importance of fissures across the vertebral articular processes lies in the differentiation of anomalous centers of ossification at the tips of the articular processes from isolated fractures of the articular processes. Such accessory ossicle formation is not very unusual. The history of antecedent trauma may be vague or entirely absent, as it was in more than half of the ten cases in his series; the defect is often bilateral (two), and the inferior, and very rarely the superior, articular processes are affected. Fracture of the articular processes without severe concomitant injuries of the spine is a rare lesion.

MILK

HORACE W. SOPER, M.D.

ST. LOUIS

I have been interested in the infectious elements carried by milk for many years. Recently I published several articles reviewing the subject. This paper is really based upon those reviews and the reader who wishes to investigate more fully is referred to them.¹ Now I wish to follow the facts that were presented to their logical conclusions.

Crumbine and Tobey in their excellent monograph on milk state that it was used as a food 4000 years B. C. The Aryans of Central Asia were the first herdsmen and honey and milk was a prized drink. Goat's milk and mare's milk were consumed by the ancient Greeks. The ancient Egyptians depicted the heavens as a cow with a full udder. In modern times, since the discovery of bacteria, milk was found to be a good culture medium for pathogenic organisms and many epidemics of typhoid fever, scarlet fever and other diseases were produced by infected milk. Pasteurization and dairy hygiene came into vogue and health authorities are today engaged in futile campaigns to secure a pure milk supply.

THE CASE AGAINST RAW MILK

Research into the etiology of gastric and duodenal ulcer revealed that a certain strain of streptococci could be isolated from the ulcers that were identical with the raw cow's milk that was fed to the patient. Observers have reported epidemics in children from 1 to 6 months of age with gastric ulcer traced to the streptococcus in milk.

Haverhill fever was traced to the use of raw milk and quite an epidemic of Haverhill fever or arthritic erythema was traced to the use of raw milk. The *Haverhillia multiformis* was found in the blood and fluid of involved joints in patients suffering with the disease.

Epidemics of Sonné dysentery have been traced to the milk supply. The streptococcus in raw milk has been recognized as the cause of epidemics of poliomyelitis.

Brucelliasis or undulant fever is unquestionably caused largely by raw milk. It is certainly increasing in this country. Nearly 10,000 cases were reported to January, 1935, and it is obvious that in many cases the diagnosis is never established.

Many observers have reported a form of chronic streptococcus mastitis existing in the herds. There is no question but that the hemo-

1. Soper, Horace W.: Milk, *Am. J. Dig. Dis. & Nutr.* 2:113, 1935; Certain Pertinent Observations Upon Milk and Cholesterol as They Relate to Infection and to Arteriosclerosis, *Am. J. Dig. Dis. & Nutr.* 3:126, 1936.

lytic streptococcus and *Str. viridans* so often isolated from the udder of cows, is pathogenic for man.

Research into dental caries forms a very important subject. Ernest A. Hooton, Professor of Anthropology at Harvard University, in a broad survey of "The Teeth of Apes and Men," a recent article in the *Scientific Monthly*, concludes that "foci of infection in teeth undermine the entire bodily health of the species and that degenerative tendencies in evolution have manifested themselves in modern man to such an extent that our jaws are too small for the teeth which they are supposed to accommodate. . . . I firmly believe that the health of humanity is at stake and unless steps are taken to discover preventatives of tooth infection and correctives of dental deformities, the course of human evolution will lead downward to extinction." Professor Hooton points out that primitive man was singularly free from tooth infection with the single exception of the Rhodesian man, equipped with the longest face, the largest palate and the worst teeth of antiquity; that examination of the skulls of savage races reveals that they did not suffer from dental caries and apical abscesses. The teeth are usually found to be worn down by attrition. It is notable that such people were not consumers of goats' or cows' milk. Professor Hooton is greatly impressed with the fact that nine out of ten school children in the United States have decayed teeth.

Bunting, Professor of Oral Pathology in the University of Michigan, came to the following conclusions after five years' research work: "Dental caries is dependent on the infestation of the mouth by specific types of bacteria capable of producing acids by the fermentation of residual carbohydrate food materials and capable of living in their own products. *Lactobacillus Acidophilus* is the organism always found in dental caries. It is also found in the intestinal tract of carious persons." Bunting believes that the character of the foods eaten by civilized people is a great factor in the production of dental caries. Primitive peoples living on simple foods not containing milk are free from caries until they come in contact with civilization.

THE CASE AGAINST PASTEURIZED MILK

Heating milk to a temperature of 62.2° C. unquestionably kills many of the pathogenic bacteria that abound in this fluid. Your modern health bacteriologist does not examine for the pathogens but contents himself and the authorities with a total bacterial count, e. g., 50,000 is regarded as good; over 100,000 is not so good. Bacteria which may survive pas-

teurization are classified as follows: (1) Heat resistant non-spore forming bacteria; (2) thermophilic bacteria; (3) streptococci, and (4) nonthermophilic spore-forming bacteria.

An important report on the milk supply of London was recently made. It appears that the milk is gathered in the country and transported to London in large glass lined tanks, each holding 3000 gallons. These tanks contain milk from different herds. The first examination of ten road and rail tanks showed all contained living virulent tubercle bacilli. The latest figures for tank milk show that out of forty-one samples thirty-four or 83 per cent contained tubercle bacilli. After pasteurization and examination of two hundred and eighty-two samples purchased over the counter, nine or 3.2 per cent contained tubercle bacilli. The large number of cases of bovine tuberculosis in Great Britain is unquestionably due to contamination of pasteurized milk.

Pasteurization at best is an ideal procedure that is rarely carried out in practice. It is but a gesture in the right direction.

EVAPORATED MILK

Marriott in 1929 pointed out the great advantages in feeding evaporated milk to infants and young children. He states "that a large or tough curd could not be formed in the stomach or intestine from evaporated milk. There are good reasons for supposing that a fine curd from milk used for infant feeding is desirable. The protein is more completely digested when small curds are formed in the stomach, bacteria are not enmeshed and removed from the influence of the bacterial acid gastric juice." Furthermore, he fed 752 young infants evaporated milk and concluded that it is the full equivalent of pasteurized or boiled whole cow's milk. He had splendid results in feeding the evaporated milk to premature infants. Following Marriott's leadership, pediatricians all over the country are practically unanimous in supporting this opinion. The literature on the subject is voluminous.

In 1929, Crumrine and Tobey asserted that evaporated milk was "the most nearly perfect food. . . . Because of its many sanitary and economic advantages, this is the milk supply of the future, though it is improbable that evaporated milk will supersede whole milk supplies in our large cities in the next few years. . . . Some time ago, the late Dr. Hermann M. Biggs, State Commissioner of Health of New York, prophesied that eventually all milk would be in the concentrated form. His forecast has not yet come true but as the public comes to appreciate the safety, uniformity, stability, digestibility, nutritional quality, convenience and in-

expensiveness of the concentrated milks, this prophecy of Dr. Biggs may eventually be more nearly accomplished."

The canned evaporated milks in the market are as a rule irradiated, have a large vitamin D content and afford a safe and convenient food for the growing child. The adult can secure his vitamins and minerals from other foods. The concentration of the milk sugar content gives the milk a sweetish unusual taste but the taste of foods is a habit and can be cultivated. Marriott's children reared on evaporated milk rejected the feeding of raw milk.

McCollum points out that the inhabitants of the wet regions in southern Asia subsist on a diet of rice, soy beans, sweet potatoes and many other vegetables. Bamboo sprouts and other leafy vegetables are eaten in large quantities. They have no herds and do not consume milk. He states that these people are better developed physically, have more capacity for work and endurance, that they escape the skeletal defects in childhood and have the finest teeth of any race in the world.

Bulgarian cultured milk is free from all other forms of bacteria, the *B. Lacto-Bulgaricus* alone appearing in the cultures. Metchnikoff was right, that the Bulgarian peasants owed their longevity to the habit of consuming milk which contained no pathogenic organisms.

The adult over 50 should avoid all milk, raw, pasteurized and evaporated, because of its high cholesterol content.

COMMENT

The question of immunity to streptococcus infection arises. Perhaps 75 per cent of the population do establish such an immunity. However, clinicians are not concerned with them but are concerned about the 25 per cent or more of individuals who do not establish such immunity and fall a prey to its devastations.

These questions come before the clinician every day. Where did this case of *Str. viridans* originate? Why do such a large percentage of school children develop infected tonsils? Where did this patient acquire septic sore throat? Why is the increase of dental caries in children concomitant with the augmented consumption of milk?

Probably man has employed milk as a food for over 6000 years, according to his drawing on cave walls. His use of the herd unquestionably marked the dawn of community life and laid the foundation of modern civilization.

Consider the tremendous economic value of resorting at once to the evaporated milk. It keeps indefinitely in the tin, it is always available and free from any bacterial contamination.

Consider the dairy wagon drawn by horses clogging our streets, obstructing traffic and creating unsanitary conditions. It is obvious that a pure fresh milk supply is impossible to secure. Why go through the great struggle to obtain it? It would be impossible if the gullible and ignorant public was properly instructed. Moreover, it would be a great boon to milk farmers who could sell their product directly to the evaporating plant instead of installing expensive refrigerating apparatus. The propaganda has been going on for so many years, so many centuries, that I do not expect a quick solution of the problem. I am, however, determined to present these facts to the members of the medical profession to whom the general public looks for advice and instruction in health matters.

I conclude the tremendous incrimination of milk as a disseminator of infection as follows:

1. All mammals, excepting the human, cease the use of milk as a food after weaning. The mother's mammary gland remains quiescent until activated by parturition.

2. As a result of his violation of a primary biologic law, man has been severely penalized by the host of infectious diseases that are disseminated by milk.

3. The dairy cow, stimulated and bred to yield milk over a long period of time, develops hypertrophy of the mammary gland. She is frequently found to be infected with a low grade streptococcus mastitis. Efforts to disinfect the udder often cause a chronic eczema; crusts and scales fall into the milk.

4. Milk is such a good culture medium that it is frequently contaminated by infectious agents not originating in the cow. "Bacterial soup" is a good synonym for it.

5. Research into the habits of the people of ancient as well as modern civilizations reveals that they were consumers of milk and all suffered from dental caries. Primitive peoples and savages were free from this disease until they came in contact with civilization.

6. Raw milk is unfit for human consumption.

7. Pasteurized milk as it reaches the consumer usually contains pathogenic bacteria and is not to be relied upon as a safe food.

3701 Westminster Place.

In making a yearly average of the height, weight and age of 8,964 young men and 4,124 young women entering the University of Cincinnati from 1916 to 1935 Laurence B. Chenoweth, Cincinnati (Journal A. M. A., Jan. 30, 1937), finds that the results show that freshmen are admitted at a younger age now than they were twenty years ago. Freshmen are taller and heavier today than they were twenty years ago, in spite of their younger age.

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MARCH, 1937

EDITORIALS

THE PHYSICIAN AND THE COORDINATION OF GOVERNMENTAL HEALTH AGENCIES

Through multifarious bureaus, committees and commissions the government of the United States is attempting the reorganization of the American manner of life. It envisages a duty to insure the individual against the hazards of economic cycles, against the insecurity of old age, and possibly against the unpredictable wraith of illness. Whether pampering destruction of that rugged individualism that has marked the growth of the nation is wise is a matter for debate. Certainly, argument can be brought to support either point of view. The machine age has made the man less important; he has been relegated to the position of a cog, an unimportant, easily replacable cog that operates the machine and is controlled by it. Hitherto, only welfare workers have been concerned with man as an individual. Now Big Government becomes aware of him. It numbers him, labels him and, willy nilly, will make his life secure, happy, fruitful.

That at least is the theory of the sociologists, the professors and the reformers. Their philosophy is based upon a sentimental reaction to the fancied rights of man without regard to the question, has man by his own merit earned the privileges which we are about to bestow? Certainly, if man has earned these privileges there can be no question that they should be given him. If he is ready for them, if he will utilize them to his own and to the Nation's advantage, if the conglomerate body of thinkers can show that he will not disregard or pervert these privileges, then they should be given.

As physicians we can have no quarrel with the reformers who seek to insure against economic cycles and old age. Perhaps as citizens we may make articulate our doubt that these

grandiose concepts will translate themselves into the cold reality of being. Our own intimate contact with the folk whom government seeks to insure may cause us to look askance at some of these schemes. For we are practical men, not philosophers awestruck at the scintillating brilliance of the sentimentalists who write books on sociology.

Being practical men it behooves us to make known our opposition to certain of the reforms now being hatched to the end that there may be no sickness, or, should the scheme break down and illness actually occur, that physicians will be paid by the government to care for whoever may demand attention. Change is inevitable. A modest amount of reform is desirable. But the reform should take the direction of coordinating the widespread governmental agencies that have to do with disease.

We have no quarrel with the concept which holds that health is the first function of government. That is, health in its broadest aspects. We believe that government should coordinate all health activities into one agency under the directorship of a physician who has had actual contact with the sickbed and who combines the requisite executive ability with this large degree of practical personal experience. We believe that this physician should be empowered to collect statistics relative to morbidity and mortality, to issue regulations relative to the control of communicable disease, to direct campaigns toward the eradication of maternal and infant mortality, to prosecute the treatment of venereal disease, to inform the public relative to community health matters; in short, we believe that this physician, the director of a newly created department of government coordinating all of the now separated agencies dealing with the public health, should have the powers necessary to enable him to deal broadly with the national problem of physical well-being and longevity.

The more intimate problem of individual well-being, however, must remain in the hands of the individual practitioners of medicine, men freely chosen by the sick person, responsible only to them, receiving remuneration only from them. It is of the most urgent importance that individual members of the Missouri State Medical Association make their convictions known to their representatives in the National government. The Missouri State Medical Association is anxious for reform of the present unsystematized governmental health agencies. It will welcome their coordination under the aegis of a properly qualified physician. It will cooperate with him in every effort to improve the standard of the National health. But it will not tolerate any attempt to trespass upon the inherent privilege of an individual patient to

choose his own physician. It will not brook interference with his confidential relationship to that patient and his family. It stands unalterably opposed to the inclusion of any plan which might make the individual physician an employee of the government, which might make the individual patient a ward of the government.

The theoretical sociologists must be made to understand the unpredictable vagaries of the human mind which preclude their attempts at paternalistic reorganization of the whole of medical practice. Let them confine their efforts to the field of government, that branch of human activity which has for its sole function the solution of problems arising in the mass relationships of individuals. Let government steer, chart the course; let the physician continue a free agent. Let him not be relegated to the position of a cog in a cumbersome, unwieldy, bureaucratic machine grinding out health, unimportant to his patient and to himself, easily replaced by another government minion.

PROGRESS IN SMOKE ABATEMENT

There may be considerable question in the minds of specialists in the matter of smoke abatement that the bill recently passed by the St. Louis Board of Aldermen will accomplish its purpose. There can be no question that the enactment of the ordinance serves notice that there has been a recrystallization of public sentiment against the economic waste and personal inconvenience caused by smoke. The Missouri State Medical Association points with pride to the part that its component society in St. Louis has played in securing passage of the bill. The militant committee of that Society charged with the matter of smoke elimination has made commendable progress. It is to be hoped that mere passage of the ordinance will not see the dissolution of the committee.

Even the advocates of the present ordinance agree with its opponents that smoke will not be eliminated. Nevertheless there is reason to believe that the volume of sulphur products emitted into the air will be materially reduced. Perhaps the number and size of carbon particles will be lessened. Such improvement will doubtless be attended by a reduction in the cleaning bill of St. Louis homes; that there will be a material reduction in the incidence of upper respiratory tract irritation is to be anticipated.

But the proponents of a clean city must not rest upon their laurels. They must see to it that the enforcement section of the ordinance is properly executed. There must be no possibility of political favoritism such as resulted in

the discharge of a smoke commissioner only a few years ago. The inspectors chosen for the smoke regulating division of the Board of Public Safety must be selected on the basis of their qualifications. They must be guaranteed freedom from political interference. They must be assured that incompetency and not zealotness will be the sole cause for dismissal.

Finally, the smoke committee of the St. Louis Medical Society must continue to cooperate with other public agencies in the further education of the public to the end that an ideal and not a compromise ordinance may be passed by our civic minded aldermen two or three, or even five years hence. Most authorities insist that it is not the type of fuel (restricted by the present ordinance) but the manner of firing (unprescribed by ordinance) that determines the composition and intensity of smoke.

Let the accomplishments of the smoke committee and the St. Louis Board of Aldermen serve only to add impetus to their further efforts to make St. Louis a smokeless city. Let them continue their educative campaign lest the present ordinance languish through unenforcement and neglect, lest this forward step be as ineffectual and as useless as all the previous efforts, previous ordinances and previous inspectors have been to abolish St. Louis smoke.

HARRY F. PARKER, M.D., APPOINTED STATE HEALTH COMMISSIONER

Dr. Harry F. Parker, Warrensburg, was appointed State Health Commissioner by Gov. Lloyd C. Stark on January 26. Dr. Parker succeeds Dr. H. S. Gove who had been acting commissioner since the resignation of Dr. E. T. McGaugh on November 30, 1936.

Dr. Parker received his medical training at the University of Missouri and the Washington University School of Medicine, being graduated in 1906. He soon began practicing and now conducts a private hospital at Warrensburg in connection with his practice. Dr. Parker is a member of the Johnson County Medical Society. He served that organization as president in 1922, 1923, 1924 and 1933. He was vice president in 1932 and served as delegate to the Missouri State Medical Association at several sessions.

His first duties as State Health Commissioner were in the flood area in Southeast Missouri where he demonstrated his ability in organization work.

Dr. Parker has the admiration and respect of his confreres in and around Warrensburg and is well known for his ability and character by many members throughout the state.

The Association confidently looks to him to give Missouri a modern department of health that will furnish the highest type of services to the people and the physicians of Missouri.

THE CAPE GIRARDEAU SESSION

The Cape Girardeau Session of the Missouri State Medical Association, the eightieth Annual Meeting, will be held May 10, 11 and 12, Monday, Tuesday and Wednesday.

The General Committee on Arrangements and the Local Committee have progressed with their work in preparation for the session and the Committee on Scientific Work has arranged a program which it believes will be of interest to every member. The Committee has been fortunate in securing guest speakers who will add much to the value of the scientific session. Members and guests who will speak and titles of their presentations appear on page 104 of this issue.

Dr. B. W. Hays, Jackson, is chairman of the General Committee on Arrangements and Dr. T. W. Cotton, Van Buren, and Dr. J. B. Luten, Caruthersville, are members.

Dr. M. H. Shelby, Cape Girardeau, was selected by the Council as chairman of the Local Committee on Arrangements. Other members of that committee are Drs. J. H. Cochran and C. A. W. Zimmermann, Cape Girardeau.

Other committees which have been appointed are:

Reception: Dr. B. W. Hays, Cape Girardeau, chairman; Drs. G. W. Walker and J. J. Drace, Cape Girardeau.

Finance: Dr. J. H. Cochran, Cape Girardeau, chairman; Drs. P. B. Nussbaum and C. H. Herbert, Cape Girardeau.

Scientific Exhibits: Dr. C. A. W. Zimmermann, Cape Girardeau, chairman; Drs. D. B. Elrod, Cape Girardeau, and Rusby Seabaugh, Jackson.

Entertainment: Dr. J. H. Cochran, Cape Girardeau, chairman; Drs. C. H. Herbert and P. B. Nussbaum, Cape Girardeau.

Hotels and Housing: Dr. H. L. Cunningham, Cape Girardeau, chairman; Drs. D. H. Hope and G. J. Tygett, Cape Girardeau.

Publicity: Dr. Joe Russell, Cape Girardeau, chairman; Drs. Albert M. Estes, Jackson, R. A. Ritter and A. G. Juden, Cape Girardeau.

Transportation: Dr. H. V. Ashley, Cape Girardeau, chairman; Drs. O. L. Seabaugh and Frank W. Hall, Cape Girardeau.

Registration: Dr. G. B. Schulz, Cape Girardeau, and Dr. D. G. Seibert, Jackson, chairmen; Drs. J. W. Berry and W. E. Yount, Cape Girardeau.

SPRING MEDICO-MILITARY SYMPOSIUM

The spring Medico-Military symposium will be held in Kansas City, Missouri, on March 15 and 16. This is sponsored by the Kansas City Southwest Clinical Society and the Medical Departments of the Army and Navy of the Seventh Corps Area. The program promises to be sufficiently varied to be interesting and instructive to every physician. Four symposia on various specialties, the respiratory system, the gastro-intestinal system and the heart will be discussed by thirty-two Kansas City physicians. The military program will be furnished by the Army and Navy Officers of the Corps Area. Military credit will be offered to all Reserve Officers who register. There will be no registration fee for this meeting.

Dr. Paul B. Magnuson, Chicago, Associate Professor of Surgery, Northwestern University School of Medicine, will deliver an address on "The Differential Diagnosis of Pain in the Joints," and on Monday evening he will speak on "Immediate Diagnosis and Treatment of the So-called Bachache." Also, on this evening, Dr. P. T. Bohan, Kansas City, will speak on "Somatic Complaints in the Psychoses, Neuroses and Conflicts."

The meetings are to be held in the Kansas City General Hospital and the officers of the hospital will be hosts at a complimentary luncheon to all registrants on both days.

The Kansas City Academy of Medicine will hold their monthly dinner on Tuesday, March 16. Dr. C. S. Beck, Associate Professor of Surgery, Western Reserve University School of Medicine, will be the guest speaker. His subject will be "Recent Advances in Cardiac Surgery." All registrants are invited to attend this scientific meeting.

STERILITY OF CATGUT

The disconcerting effect upon surgeon and hospital personnel when faced with the patient developing tetanus during convalescence from an internal operation for appendicitis is not difficult to appreciate. Fortunately such a complication is rare. Less rarely, the surgeon is faced with an inexplicable disruption of the wound in a seemingly normal patient. The obvious explanation of infected suture material finds ample support in the classical studies of Meleney.¹ On the basis of his experience he proposed that the Hospital Standardization

1. Meleney, F. L., and Chatfield, M.: The Sterility of Catgut in Relation to Hospital Infection, Surg. Gynec. & Obst. 52:430, 1931.

Committee of the American College of Surgeons require that tests devised by him be carried out on the products of all catgut manufacturers. The wisdom of such a course cannot be doubted. Hence it is disconcerting to read² that the catgut distributed by some seven of twelve American firms during the first five years following Meleney's report showed infection of one type or another in from 5 to 67 per cent of over six thousand sutures. It is especially significant that in both 1930 and 1931 there was at least one manufacturer whose catgut showed 100 per cent of infection. That patients should be exposed to 100 per cent chance of contamination with dangerous spore-forming bacteria is unbelievable; that surgeons should be exposed to 100 per cent chance of embarrassment as well as to the consequent loss of prestige is unthinkable.

The difficulty with sterilization of suture material lies in the relatively short temperature range between the thermal death point for spore-formers, including the bacilli of gas gangrene and tetanus, and the thermal point at which dissolution of the catgut occurs. To date, it must be admitted that no uniformly satisfactory method of sterilization has been found; yet there are available methods to determine which lots of catgut have actually been sterilized and should be distributed. It might be assumed that if individual hospital staffs assured themselves of the sterility of catgut, wound dissolution would become a thing of the past. Unfortunately such a surmise is untenable.

It is a common operating room experience to have catgut, with which the operator is thoroughly familiar through long usage, break. Even today wounds closed according to the most meticulous technic break down. The reasons therefor become apparent through the recent report of Kraissl.³ He subjected catgut to *in vitro* digestion and found that in some instances strands which ordinarily required as much as two hundred hours for their digestion broke down in half a day. The variation in this regard was indeed surprising; for example, plain boilable 00 catgut of manufacturer A showed an average digestion rate of fourteen hours, and the plain nonboilable product of the same concern, of ten hours. The chromic boilable 00 catgut of this firm was digested in forty-seven hours but the nonboilable variety required approximately one week for its digestion.

Kraissl's further investigation disclosed some startling facts. Microscopically, the strands of

catgut showed amazing irregularities and inequalities. Bending, unavoidable as the material is packed in small glass tubes, may produce a conspicuous weakness of the chitinous structure. In some instances there were flaws so great as to leave less than half the normal width of the strand. In still others there were amorphous deposits of unknown composition within the substance of the fiber. Perhaps as a result of these departures in physical structure the catgut showed striking differences in appearance after immersion in solutions of weak alkali. The effect of physically imperfect catgut upon wound healing, regardless of sterility, is not difficult to conceive.

Even allergy has been invoked to explain some of the otherwise inexplicable reactions of patients to catgut. That individual persons may be sensitive to the halogens and other chemicals frequently present in this material is commonly assumed. Kraissl's work as well as the work of others shows that actual allergy may exist. Thus of fifty-six cases of wound disruption in the Presbyterian Hospital of New York in the last five years, the patients gave a history of allergy in four instances and of previous operation (with introduction of catgut) in thirty-two. Nineteen of these patients were given sensitivity tests; two thirds showed allergic reactions either to the catgut or to chemicals used in its preparation. Of sixty-six nonallergic patients who had never been operated upon, one eighth gave a reaction to intradermally injected catgut antigen, and nearly one third of another group of thirty-eight nonallergic persons who had suffered operation showed positive reactions. These figures show an enormous number of persons potentially susceptible to wound disruption.

The importance of these studies to the surgeon who seeks to avoid the embarrassment of a gaping laparotomy wound is evident. Kraissl proved in a small series of guinea pigs that sensitization to various types of catgut could be brought about, that wounds disrupted as they do in human beings. His experiments on a larger series of animals will be awaited with interest.

Thus, to the difficult task of selecting a catgut suitable to the requirements of individual patients and individual operative procedures there is added to the problem of sterility the problem of weakened physical composition of the material. This may arise in the uneven distribution of chemicals throughout the substance of the strand, in the torsion produced by bending to pack the material in small containers, or even through the presence of amorphous, unidentified inclusion bodies.

2. Clock, R. O.: The Present Status of the Sterility of Surgical Catgut Sutures, *Surg. Gynec. & Obst.* **60**:202, 1935.

3. Kraissl, C. J.: Intrinsic Factors Altering the Absorption of Catgut, *Surg. Gynec. & Obst.* **63**:561, 1936.

BILLS IN THE LEGISLATURE

A Senate bill, No. 3, providing for a State General Hospital at Columbia for the care and treatment of the indigent sick was accrued by the Committee on Public Health of the Senate February 23 and reported out for action by the Senate. The committee amended the bill so as to prohibit inmates of the eleemosynary and penal institutions from being sent to the General Hospital for treatment. The bill provides that a wing or wards shall be devoted to the care and treatment of indigents afflicted with cancer.

Such an institution will undoubtedly save many lives for the hospital will make room for many cases of early cancer which now are denied hospital treatment because of the limited facilities at present available for such treatment.

The bill introduced in the House of Representatives by Dr. J. G. Christy, Speaker of the House, himself a dentist, materially strengthening the dental law for the control and elimination of incompetent dentists and misleading advertisements of commercialized dental practitioners, has passed the House by unanimous vote. The bill is now in the Senate for action by that body.

NEWS NOTES

A county-wide drive to forestall a threatened smallpox epidemic in St. Louis County was started February 23. Wholesale vaccination was recommended by Dr. Theodore R. Meyer, St. Louis County Health Commissioner, at a meeting of health officers of the several county municipalities.

Dr. J. C. B. Davis, Willow Springs, Councilor of the Twenty-seventh District and Chairman of the Publication Committee, well known and highly esteemed by many of the members throughout the state, was kidnaped and murdered on January 26. An obituary will appear in an early issue.

Dr. Alexis F. Hartmann, St. Louis, was a guest of the Mid-South Postgraduate Medical Assembly, which met February 16 to 20 in Memphis. He presented an address on "Some Aspects of Diabetes Mellitus in Infants and Children." On March 22 Dr. Hartmann will be a guest of the Wayne County Medical Society, Detroit, and speak on "Parenteral Fluid Administration: Factors Influencing the Choice of Solutions."

Dr. Evarts A. Graham, St. Louis, was a guest of the University of Minnesota, Minneapolis, on February 3 and delivered the Judd Lecture. His subject was "Accomplishments of Thoracic Surgery and Its Present Problems." On February 4 Dr. Graham addressed the Minneapolis Surgical Society, Minneapolis, on "Some Aspects of Disease of the Biliary Tract."

The Homer G. Phillips Hospital for the Colored, St. Louis, was dedicated February 22. Honorable Harold L. Ickes, Secretary of the Interior, gave the principal address at the ceremony held at the hospital following a parade. The Mound City Medical Association, organization of Negro physicians in St. Louis, took a prominent part in the program. The hospital was open for inspection throughout the week and it was scheduled to begin operation about March 1.

The thirty-third Annual Congress on Medical Education and Licensure met in Chicago February 15 and 16. Presentations and discussions dealt with work of the Council on Medical Education and Hospitals of the American Medical Association, standards of medical schools, licensure, cancer, narcotics, selection of students for medical schools and technic of examination, certification of specialists, and lay education. Among those attending from Missouri were Dr. Harry F. Parker, Jefferson City, State Health Commissioner; Dr. E. Sanborn Smith, Kirksville, president, State Board of Health, and Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary, Missouri State Medical Association.

The medical staff of the Menninger Clinic will conduct its third annual postgraduate course on "Neuropsychiatry in General Practice" from April 19 to 24 at the Menninger Clinic, Topeka, Kansas. The course this year will include a brief introduction to the fields of neurology and psychiatry and a specific application of this knowledge to the large group of cases of psychoneuroses, psychoses and psychogenic and neurological disorders which every physician meets in his daily practice. Suggestions made by those who took the course last year have been embodied in this year's program in order to make it applicable to the most common practical problems of the physician. As in previous years several guest speakers, prominent in the fields of neurology and psychiatry, will appear at the evening sessions of the course.

The American Dietetic Association in an effort to formulate a standard set of food equivalents has distributed tentative lists of food equivalents to member dietitians for their criticisms and suggestions prior to the preparation of a final and authoritative set of standards. The necessity of making substitutions of one foodstuff for another in the quantitative diets required for the treatment of many of the metabolic diseases often leads to confusion and inaccuracy and authors of textbooks on dietetics often pay too little attention to the importance of being able to satisfy the whims, likes and dislikes of individual patients by offering foods of equivalent proximate and caloric value.

The Mid-West and Southern Sections of the American Congress of Physical Therapy will hold a one day scientific session on March 9 at the St. Louis Medical Society Building, St. Louis. The evening session will be held jointly with the St. Louis Medical Society. Among the participants in the program are Drs. Frank H. Krusen, Rochester, Minnesota; A. J. Kotkis, St. Louis; Albert Kuntz, St. Louis; M. F. Lautman, Hot Springs, Arkansas; William H. Schmidt, Philadelphia; M. E. Knapp, Minneapolis; A. F. Tyler, Omaha, Nebraska, and Geza de Takats, Chicago. A demonstration of the physical aspects of short wave diathermy will be given by Howard A. Carter, Secretary, Council on Physical Therapy, American Medical Association. There will be no registration fee.

The Northwest Medical Conference composed of Michigan, Minnesota, North and South Dakota, Iowa, Missouri, Illinois and Indiana convened in Chicago, February 14. The Iowa State Medical Association acted as host. The first part of the morning session was devoted to presentations on postgraduate and economic education. Dr. Ralph R. Wilson, Kansas City, Chairman of the Committee on Maternal Welfare of the Missouri State Medical Association, opened the discussion. The second part of the morning session was devoted to medical economics and Dr. Carl F. Vohs, St. Louis, Chairman of the Committee on Medical Economics of the Missouri State Medical Association, assisted in leading the discussion. At noon the group was entertained at luncheon by the Iowa State Medical Association. A symposium on "Social Security Activities" was presented in the afternoon. Dr. R. L. Sensenich, South Bend, Indiana, was elected president of the conference and Dr. Carl F. Vohs, St. Louis, was elected secretary. The conference will con-

vene in Chicago next February with the Indiana State Medical Association as host. Dr. Vohs and Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary of the Missouri State Medical Association, were guests at a meeting of the Council of the Illinois State Medical Association which met in Chicago on the same day.

The St. Louis Gynecological Society and the Chicago Gynecological Society held a joint meeting in St. Louis on February 13. In the morning dry clinics were presented at the Firmin Desloge Hospital by St. Louis physicians with Dr. William H. Vogt, St. Louis, as chairman. In the afternoon Dr. Otto H. Schwarz, St. Louis, was chairman of a dry clinic session presented by St. Louis physicians at the St. Louis Maternity Hospital. Following a dinner at the University Club a scientific session at which Dr. H. S. Crossen, St. Louis, president of the St. Louis Gynecological Society presided, was presented by members of the Chicago Gynecological Society. The program consisted of a talk by Dr. Joseph L. Baer on "Selective Treatment of Prolapse of the Uterus"; Dr. N. Sproat Heaney discussed "Operative Indications in Gynecology" and Dr. W. C. Danforth talked on "The Management of Breech Presentation."

The Committee on Cancer of the Missouri State Medical Association is endeavoring to assemble an exhibit for the Annual Session at Cape Girardeau, May 10, 11, 12. The object of the exhibit is to demonstrate to the medical profession and to the laity that cancer is curable and it is the wish of the Committee on Cancer to have as many members of the Association as possible participate in this exhibit. Therefore, all members of the Association who may have photographs or illustrations of patients with cancer showing the favorable effect of treatment are invited to participate. A brief history of the case should be attached to the photographs. The contributions should have no identifying labels and photographs of faces should have eyes blocked in order to obscure the identity. The Committee on Cancer reserves the right to reject any contributions and display either all or in part. Material should be sent to Dr. T. S. Lapp, Fulton, not later than April 15. Dr. Lapp will take the responsibility for their preservation and return after the meeting.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Calco Chemical Company
Crystal Violet Medicinal—Calco
Crystal Violet Jelly—Calco
Cutter Laboratories
Rabies Vaccine (Semple) 7 1 cc. vials package
Typhoid Prophylactic, 20 cc. bottle
Eli Lilly & Company
Ampoules Pentobarbital Sodium—Lilly, 0.5 Gm. (7½ grains)
Eli Lilly & Company
Suppositories Sodium Amytal, 3 grains.
Gilliland Laboratories, Inc.
Diphtheria Schick Test Toxin, Diluted Ready for Administration—Gilliland
Diphtheria Toxoid-Alum Precipitated (Refined)
McKesson & Robbins, Inc.
McKesson's Halibut Liver Oil with Vitamin D Concentrate in Neutral Oil, 6 cc.
Merck & Co., Inc.
Gold and Sodium Thiosulfate—Merck
Ampuls Gold Sodium Thiosulfate—Merck, 0.01 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.025 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.05 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.10 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.20 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.25 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.30 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 0.50 Gm.
Ampuls Gold Sodium Thiosulfate—Merck, 1.0 Gm.
Ichthyol—Merck.
Riedel-de Haen, Inc.
Pernoston Tablets, 3 grains
Sharp & Dohme, Inc.
Diphtheria Toxoid-Alum Precipitated
Nonproprietary Articles
Crystal Violet

MISCELLANY

THE PHYSICIAN'S INCOME TAX—1937

The Federal Income Tax Law, the Revenue Act of 1936, has been amended in several respects but not as it affects physicians. However, that members may have correct data on the law an explanation of the Federal law is reprinted from the *Journal of the American Medical Association*, issue of January 16, 1937, and information on the Missouri law is furnished by the auditor of the State of Missouri.

Federal Income Tax

The material from the *Journal of the American Medical Association* follows:

The Revenue Act of 1936 amended in numerous respects the prior income tax law, but none of the changes made relate to physicians as a class distinct from the main body of federal income tax payers.

Everyone who is required to make a federal income tax return must do so on or before March 15, unless an extension of time for filing his return has been granted. For cause shown, the collector of internal revenue for the district in which the taxpayer files his return may grant such an extension, on application filed with him by the taxpayer. This application must state fully the causes for the delay. Failure to make a return may subject the taxpayer to a penalty of 25 per cent of the amount of the tax due.

The normal rate of tax on residents of the United States and on all citizens of the United States regardless of their places of residence is 4 per cent on net income in excess of the exemptions and credits.

WHO MUST FILE RETURNS

1. If gross income was less than \$5,000 during 1936, a return must be filed (a) by every unmarried person, and by every married person not living with her husband or his wife, whose net income was \$1,000 or more, and (b) by every married person living with her husband or his wife, whose net income was \$2,500 or more. If the aggregate net income of husband and wife, living together, was \$2,500 or more, each may make a return or the two may unite in a joint return.

2. Returns must be filed by every person whose gross income in 1936 was \$5,000 or more, regardless of the amount of his net income and of his marital status. If the aggregate gross income of husband and wife, living together, was \$5,000 or more, they must file either a joint return or separate returns, regardless of the amounts of their joint or individual net incomes.

If the status of a taxpayer, so far as it affects the personal exemption or credit for dependents, changed during the year, the personal exemption and credit must be apportioned, under rules and regulations prescribed by the Commissioner of Internal Revenue with the approval of the Secretary of the Treasury, in accordance with the number of months before and after such change. For the purpose of such apportionment a fractional part of a month should be disregarded unless it amounts to more than half a month, in which case it is to be considered as a month.

As a matter of courtesy only, blanks for returns are sent to taxpayers by the collectors of internal revenue, without request. Failure to receive a blank does not excuse anyone from making a return; the taxpayer should obtain the necessary blank from the local collector of internal revenue.

The following discussion covers only matters relating specifically to physicians. Full information concerning questions of general interest may be obtained from the official return blank and from the collectors of internal revenue.

GROSS AND NET INCOMES: WHAT THEY ARE

Gross Income.—A physician's gross income is the total amount of money received by him during the year for professional services regardless of the time when the services were rendered for which the money was paid, plus such money as he has received as profits from investments and speculation and as compensation and profits from other sources.

Net Income.—Certain professional expenses and the expenses of carrying on any enterprise in which the physician may be engaged for gain may be subtracted as "deductions" from the gross income, to determine the net income on which the tax is to be paid. An "exemption" is allowed, the amount depending on the taxpayer's marital status during the tax year as stated before. These matters are fully covered in the instructions on the tax return blanks.

Earned Income.—In computing the normal tax, but not the surtax, there may be subtracted from net income from all sources an amount equal to 10 per cent of the earned net income, except that the amount so subtracted shall in no case exceed 10 per cent of the net income from all sources. Earned income means professional fees, salaries and wages received as compensation for personal services, as distinguished from receipts from other sources.

The first \$3,000 of a physician's net income from all sources may be regarded under the law as earned net income, whether it was or was not in fact earned within the meaning set forth in the preceding paragraph. Net income in excess of \$3,000 may not be claimed as earned unless it in fact comes within that category. No physician may claim as earned net income any income in excess of \$14,000.

DEDUCTIONS FOR PROFESSIONAL EXPENSES

A physician is entitled to deduct all current expenses necessary in carrying on his practice. The taxpayer should make no claim for the deduction of expenses unless he is prepared to prove the expenditure by competent evidence. So far as prac-

ticable, accurate itemized records should be kept of expenses and substantiating evidence should be carefully preserved. The following statement shows what such deductible expenses are and how they are to be computed:

Office Rent.—Office rent is deductible. If a physician rents an office for professional purposes alone, the entire rent may be deducted. If he rents a building or apartment for use as a residence as well as for office purposes, he may deduct a part of the rental fairly proportionate to the amount of space used for professional purposes. If the physician occasionally sees a patient in his dwelling house or apartment, he may not, however, deduct any part of the rent of such house or apartment as professional expense; to entitle him to such a deduction he must have an office there, with regular office hours. If a physician owns the building in which his office is located, he cannot charge himself with "rent" and deduct the amount so charged.

Office Maintenance.—Expenditures for office maintenance, as for heating, lighting, telephone service and the services of attendants, are deductible.

Supplies.—Payments for supplies for professional use are deductible. Supplies may be fairly described as articles consumed in the using; for instance, dressings, clinical thermometers, drugs and chemicals. Professional journals may be classified as supplies, and the subscription price deducted. Amounts currently expended for books, furniture and professional instruments and equipment, "the useful life of which is short," generally less than one year, may be deducted; but if such articles have a more or less permanent value, their purchase price is a capital expenditure and is not deductible.

Equipment.—Equipment comprises property of a more or less permanent nature. It may ultimately wear out, deteriorate or become obsolete, but it is not in the ordinary sense of the word "consumed in the using."

The cost of equipment, such as is described above, for professional use, cannot be deducted as expense in the year acquired. Examples of this class of property are automobiles, office furniture, medical, surgical and laboratory equipment of more or less permanent nature, and instruments and appliances constituting a part of the physician's professional outfit, to be used over a considerable period of time, generally over one year. Books of more or less permanent nature are regarded as equipment and the purchase price is therefore not deductible.

Although the cost of such equipment is not deductible in the year acquired, nevertheless it may be recovered through depreciation deductions taken year by year over its useful life, as described below.

No hard and fast rule can be laid down as to what part of the cost of equipment is deductible each year as depreciation. The amount depends to some extent on the nature of the property and on the extent and character of its use. The length of its useful life should be the primary consideration. The most that can be done is to suggest certain average or normal rates of depreciation for each of several classes of articles and to leave to the taxpayer the modification of the suggested rates as the circumstances of his particular case may dictate. As fair, normal or average rates of depreciation, the following have been suggested: automobiles, 25 per cent a year; ordinary medical libraries, X-ray equipment, physical therapy equipment, electrical sterilizers, surgical instruments and diagnostic apparatus, 10 per cent a year; office furniture, 5 per cent a year.

The principle governing the determination of all rates of depreciation is that the total amount claimed by the taxpayer as depreciation during the life of the article, plus the salvage value of the article at the end of its useful life, shall not be greater than its purchase price or, if purchased before March, 1913, either its fair market value as of that date or its original cost, whichever may be greater. The physician must in good faith use his best judgment and claim only such allowance for depreciation as the facts justify. The estimate of useful life, on which the rate of depreciation is based, should be carefully considered in his individual case.

In a Treasury Decision, approved Feb. 28, 1934, No. 4422, it is held, among other things, that

1. The cost to be recovered shall be charged off over the useful life of the property.
2. The reasonableness of any claim for depreciation shall be determined on the conditions known to exist at the end of the period for which the return was made.
3. Where the cost or other basis of the property has been recovered through depreciation or other allowances, no further deduction for depreciation shall be allowed.
4. The burden of proof will rest on the taxpayer to sustain the deduction claimed.
5. The deduction for depreciation in respect to any depreciable property for any taxable year shall be limited to such ratable amount as may reasonably be considered necessary to recover during the remaining life of the property the unrecovered cost or other basis.

Particular attention is called to the last of the foregoing provisions. If, in prior years, rates have been claimed which, if continued, will fully depreciate the cost, less salvage, before the end of its useful life, based on conditions now known, a reestimate of the remaining useful life should now be made and the portion of the cost that had not been depreciated at the

beginning of the year 1936 (for a return for the year 1936) should be spread over this reestimated life.

Medical Dues.—Dues paid to societies of a strictly professional character are deductible. Dues paid to social organizations, even though their membership is limited to physicians, are personal expenses and not deductible.

Postgraduate Study.—The Commissioner of Internal Revenue holds that the expense of postgraduate study is not deductible.

Traveling Expenses.—Traveling expenses, including amounts paid for transportation, meals and lodging, necessarily incurred in professional visits to patients and in attending medical meetings for a professional purpose, are deductible.

Automobiles.—Payment for an automobile is a payment for permanent equipment and is not deductible. The cost of operation and repair, and loss through depreciation, are deductible. The cost of operation and repair includes the cost of gasoline, oil, tires, insurance, repairs, garage rental (when the garage is not owned by the physician), chauffeur's wages, and the like.

Deductible loss through depreciation of an automobile is the actual diminution in value resulting from obsolescence and use and from accidental injury against which the physician is not insured. If depreciation is computed on the basis of the average loss during a series of years, the series must extend over the entire estimated life of the car, not merely over the period in which the car is in the possession of the present taxpayer.

If an automobile is used for professional and also for personal purposes—as when used by the physician partly for recreation, or so used by his family—only so much of the expense as arises out of the use for professional purposes may be deducted. A physician doing an exclusive office practice and using his car merely to go to and from his office cannot deduct depreciation or operating expenses; he is regarded as using his car for his personal convenience and not as a means of gaining a livelihood.

What has been said in respect to automobiles applies with equal force to horses and vehicles and the equipment incident to their use.

MISCELLANEOUS

Contributions to Charitable Organizations.—For detailed information with respect to the deductibility of charitable contributions generally, physicians should consult the official return blank or obtain information from the collectors of internal revenue or from other reliable sources. A physician may not, however, deduct as a charitable contribution the value of services rendered an organization operated for charitable purposes.

Laboratory Expenses.—The deductibility of the expenses of establishing and maintaining laboratories is determined by the same principles that determine the deductibility of corresponding professional expenses. Laboratory rental and the expenses of laboratory equipment and supplies and of laboratory assistants are deductible when under corresponding circumstances they would be deductible if they related to a physician's office.

Losses by Fire or Other Causes.—Loss of and damage to a physician's equipment by fire, theft or other cause, not compensated by insurance or otherwise recoverable, may be computed as a business expense and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent to which it has not been made good by repair and the cost of repair claimed as a deduction.

Insurance Premiums.—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment and damage to or loss of professional equipment by fire or otherwise. Under professional equipment is to be included any automobile belonging to the physician and used for strictly professional purposes.

Expense in Defending Malpractice Suits.—Expense incurred in the defense of a suit for malpractice is deductible as a business expense.

Sale of Spectacles.—Oculists who furnish spectacles, etc., may charge as income money received from such sales and deduct as an expense the cost of the article sold. Entries on the physician's account books should in such cases show charges for services separate and apart from charges for spectacles, etc.

Missouri Income Tax

The State Auditor of Missouri gives the following information on the Missouri law:

Returns should be filed by March 15, 1937. Failure to file by that time subjects the taxpayer to a penalty which is his tax being doubled. A verified copy of the Federal return filed should be attached to the Missouri State Income Tax return. Returns should be filed with the City Assessor of St. Louis, or for those who reside outside of St. Louis, the return should be filed with the assessor of the county in which he lives.

All income received with the exception of dividends from national banks and interest on Liberty Bonds should be reported.

The personal exemption for married men is \$2000. Single persons, head of a household, that is, supporting one or more persons under one roof, are entitled to an exemption of \$2000. Single persons with no dependents are entitled to an exemption of \$1000. For each dependent there is an additional exemption of \$200 each.

All expenses on automobiles used for business may be deducted; that is, gasoline, oil, general upkeep and depreciation. Office expense may all be deducted including salaries and wages, material and supplies, rent, repairs, light, heat, electricity, telephone or whatever is involved in keeping up the office.

Subscriptions to all medical journals and dues to all medical societies are deductible as well as interest paid, taxes, losses by fire, storm or theft not compensated for by insurance. All donations to organized charities can be deducted but this amount is not to exceed 15 per cent of the net income shown on the return.

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are here reprinted that the members throughout the state may have the opportunity of reading them.

The Infectiousness of Syphilis

The infectiousness of syphilis places it in the foremost rank of diseases which threaten family and community life. The physician cannot conscientiously treat his patient without taking this fact into account and without making the patient fully aware of the precautions he must take to keep from spreading the infection.

In general, it may be said that the more recent infections are the more dangerous, and that the most infectious lesions are the chancre, the mucous patch, the condyloma and the moist papule to be found in moist flexures such as the elbow and axilla. Dry eruptions are noninfectious, but all open or eroded lesions in early syphilis are dangerous. Late syphilides are not infectious in the usual sense of the word even though open sores are present. Hence, syphilis is transmitted mainly by intimate contact of moist surfaces, through sex-relations and through kissing.

Infection may also be transmitted by the semen both in early and in latent syphilis. Transfusion likewise is a means of transmitting the disease, and a single negative blood Wassermann or Kahn blood test in the donor does not guarantee protection to the patient.

The question of moisture is also important in connection with articles handled by the patient. Moist articles, dressings and objects of common use can carry infection, which makes it imperative that dishes, utensils and instruments used by the patient in the infectious stage be boiled or otherwise sterilized. At the same time it is well for the physician to make an active effort to counteract the phobias which exist in the minds of many people in regard to their erroneous ideas about the transmissibility of syphilis. Trauma by means of an infected object such as a needle prick may inoculate the doctor the nurse with the spirochete. The resulting infection may be hematogenous and without chancre. This fact presents a very grave danger to the physician.

The physician must be constantly on the alert for infectious recurrent lesions. The places where they are mostly likely to occur are on the inner and outer surfaces of the lip, the angles of the mouth, the faucial pillars and tonsils, the sides and bottom of the tongue, the axillae, the nipples, the inguinal folds, the genitalia

and the anus. Local irritations such as dirt, sweat, discharges, friction and tobacco favor infectious recurrence.

The decision as to the infectiousness or noninfectiousness of a patient with syphilis presents the most knotty problem in the social management of the disease. It should not be made merely upon the basis of a routine amount of treatment or upon the presence of a positive or a negative Wassermann-Kahn blood test. The latter may be negative with infectious lesions present, and positive in noninfectious cases. Nor can it be made upon the basis of the lapse of an arbitrary time interval since infection took place.

It may be generally stated that practically any infectious case can be temporarily sterilized in three or four days and can be kept noninfectious by enough arsenical, and by continuous uninterrupted treatment, and that the arsphenamines are a necessity, not a choice, in rendering the patient noninfectious.

Time diminishes the infectiousness of syphilis but years rather than months must elapse from the onset of the disease before the patient can be regarded as continuously noninfectious and allowed to resume an unsupervised schedule. After five years a few cases are infectious, but desultory inadequate treatment may prolong infection many months or years.

No treatment can guarantee the noninfectiousness of syphilis indefinitely. The patient should be under lifetime supervision.

Latent Syphilis

As stated earlier in this series there is no definite line of demarcation between primary and secondary syphilis. It is even more noticeably true that the transition from secondary to late syphilis is not abrupt and not included within a definite period of time. The period of latency may last from a few weeks to sixty years or more. In this long period of latency, in which the patient is seldom reminded of the existence of his infection, appear the so-called recurrences which make him a danger to his fellows and which have been discussed under the article on treatment.

Usually after a variable time, the pathogenic action of the spirochete seems to be repressed and the organisms remain in a more or less dormant or "latent" condition in the system. In some instances the spirochete may be recovered from the blood stream in individuals in the latent stage of the disease. Whether it exists in the blood stream at all times or appears there only in a cyclic manner is not known, but its presence is a fact which must be kept in mind for the proper understanding of the late phases of the disease.

Many kinds of organisms become latent in the human body; for example, tuberculosis and certain streptococcus infections. Syphilis is not the only disease that delays its sting for years. The latency of syphilis, however, is probably of more importance as far as the clinical course of the disease is concerned than that of tuberculosis or any of the other diseases which frequently become latent. When the number of chronic pathological processes that are basically due to the organism of syphilis is considered, one must at once realize the vast importance of properly understanding the biological relationship of the latent *Spirochaete pallidum* to the economy of the host.

Since the introduction of serological tests many startling revelations in relation to syphilis have been made which have brought into prominence the factor of latency in syphilis as it is through this reaction that one is able to detect the presence of active spirochete in an apparently healthy individual. While a negative serological reaction does not always mean that there

are not active spirochetes, the test is of inestimable assistance in determining or detecting latency.

It is highly probable that latency means a balance between the offensive forces of the organism and the defensive forces of the body cells. It might also mean that the cells of the host after a long period become accustomed to the presence of the organism and no longer react to it by forming lesions.

It seems that true latency of the organism is attained only through a general invasion of the tissue cells by the spirochetes with the subsequent and resultant manufacture of these repressive or immune bodies. In those cases of syphilis where the invasion stage does not present a generous cutaneous efflorescence, it is probable that a true latency is not attained and it is in just such cases that tabes and paresis may later occur. The skin in this disease and probably in other eruptive diseases is the source of those immunizing bodies which influence the repression of the organisms. At any rate, clinical experience seems to point to the fact that those cases which have presented in their clinical course a widespread cutaneous eruption are less severe as regards life and general health than those which do not run such a frank course.

It is apparent then that the spirochete acts upon the tissues of the body in two ways; firstly, in an offensive, invasive manner in which the virility of the organism is at its height, and secondly, in a latent manner in which the pathogenic action is evidently repressed at least for long periods of time but may later manifest itself by symptoms included under the heading of late syphilis.

Late (Tertiary) Syphilis—Skin and Mucous Membranes

Familiarity with the cutaneous lesions and scars of late syphilis is of great value to the physician in two respects. In the first place, it serves to provide "suspicion arousers" in the case of patients whose general medical condition does not suggest the disease and, in the second place, it frequently provides sufficient evidence to clinch the diagnosis in the absence of a positive serological blood reaction. The only clue to a relatively quiescent infection may be in some lesion of the skin or mucosa to which the patient has given little or no attention.

In late syphilis, as in the skin manifestations of the early stages, the diagnosis rests upon a thorough knowledge of dermatology and the art of differentiation. But in general the distinctive groups of late cutaneous syphilides separate themselves into three types, the papular or nodular, the nodulo-ulcerative and the simple gumma. The physical characteristics of the late lesion are summarized by Stokes as follows:

1. Solitary character, or at least the presence of a few lesions.
2. Asymmetry, though by no means invariable.
3. Induration, deep palpable infiltration.
4. Indolence, a relatively low-grade inflammatory process.
5. Arciform configuration, borders polycyclic or forming segments of circles both in the individual lesion and in the configuration of a group of lesions.
6. Sharp margination of lesions, in ulcers, "punched out" appearance.
7. Tissue destruction and replacement with or without ulceration.
8. Tendency to central or one-sided healing with peripheral extension.
9. Scar formation, superficial atrophic (thin and wrinkled), non-contractile. The scar retains the arciform configuration of the original lesion.

10. Peripheral hyperpigmentation of a rather persistent type.

No one of the ten individual items can be accepted alone, but the combinations often achieve pathognomonic value and quite outrank the serological blood test in their diagnostic worth. All granulomatous processes in the skin share some of these characteristics in varying degree. In the diagnosis the combination of induration with a kidney-shaped, circinate, scalloped-bordered or polycyclic configuration is perhaps the most significant point, and the trained palpating finger is repeatedly called into use by the expert in differentiating such lesions. The diagnosis from tuberculosis, sporotrichosis, blastomycosis, certain bromide eruptions, varicose ulcers of the legs, etc., and vegetative granulomata must be a routine part of the procedure of every physician who deals with the disease.

The nongranulomatous conditions of the skin which may under certain circumstances be confused with late syphilides are psoriasis, seborrheic dermatitis, lupus erythematosus, lupus vulgaris, factitial ulcers, trichophytoses, epithelioma, fibrosarcoma, mycosis fungoides, and cutaneous lymphoblastoma, including the nodular and tumor-like infiltrations of Hodgkin's disease and leukemia cutis. Of particular importance is the differential diagnosis of lesions about the nose and face.

As far as the mucous membranes are concerned the following forms present themselves, late recurrences with the circinate configuration and the nodular and ulcerative character of the nodulo-ulcerative syphilide of the skin; interstitial or sclerosing glossitis; fissure; solitary gumma; perforating gumma of the soft palate, and gumma of the tongue.

As late syphilis approaches the muco-cutaneous junctions and invades the mucous membranes, the risk of malignant degeneration makes its appearance and its diagnosis must be the physician's first consideration.

Dark field examination is useless in late lesions of the mucous membranes. The burden of diagnosis is thrown upon the art of the physician.

OBITUARY

WILLIAM CRITTENDEN WEBB, M.D.

Dr. William C. Webb, Higginsville, a graduate of the Medical College of Ohio, Cincinnati, 1886, died February 1, aged 74.

Dr. Webb attended Central College at Fayette and the University of Missouri before taking his medical work. He began his practice in Higginsville immediately after completing his medical course and continued in practice there until his death, a period of fifty-one years.

He was an active member of the Lafayette County Medical Society. He served as president of the Society in 1924 and served several years as alternate delegate. He had been physician and surgeon for the Chicago and Alton Railroad for the last forty years and was physician for the Confederate Home at Higginsville for eighteen years. He had many friends in his community and he will be deeply missed.

He is survived by his widow, Mrs. May Campbell Webb, and three sons.

GEORGE KIRBY SIMS, M.D.

Dr. George Kirby Sims, Bolivar, a graduate of the Northwestern University Medical School, Chicago, 1922, died at St. John's Hospital, Joplin, January 25

after a six weeks' illness. Death was attributed to meningitis following lobar pneumonia. He was 56 years old.

Dr. Sims was born in Harrison, Arkansas, and attended high school there. He was graduated from the College of Music at Cincinnati and was engaged in operatic and concert work for several years. He attended Tulane University and the University of Minnesota before receiving his degree in medicine from Northwestern University Medical School. He served internships in Detroit and Chicago. He was associated with his brother, Dr. John L. Sims, Joplin, for a while then practiced in Harrison, Arkansas. Two years ago he moved to Bolivar.

Dr. Sims transferred his membership from the Boone County (Arkansas) Medical Society to the Dallas-Hickory-Polk County Medical Society. He was secretary-treasurer of that Society at the time of his death.

He is survived by his widow, Mrs. Evelyn D. Sims, three sisters and two brothers. One brother is Dr. John L. Sims, Joplin.

Books for Leisure Moments

What is loosely termed the moral standard of an age is too often the theoretical conception of a few high-minded sentimentalists. It does not reflect the actual relationship of men and women attracted to one another by a deep-seated biologic urge, seeking satisfaction without regard to the real danger of disease inherent to promiscuous heterosexuality. The prattlings of the moralist prevent the dissemination of information which might permit a partial opportunity to escape disease at the same time that desire is satisfied.

In the few months that have elapsed since Dr. Thomas Parran assumed his duties as Surgeon General of the United States Public Health Service increasing attention has been drawn to the hazard of venereal infection. Not only that, but the public has been forced to the realization that however much the moralists may deny the existence of the problem, however much they may wish to relegate it to oblivion, this matter of syphilis is important. It is the cause of economic loss, of individual illness and invalidism. It is a matter of grave public concern. Whether there has been, as some think, an increased incidence of extramarital relationships since the world war, whether, what are loosely called moral standards, have been lowered since that time, is unimportant.

The passage of the years has made it increasingly evident, just as have observations within the armed forces of the United States, that regulation, restriction, sublimation, legislation, all are impotent to stop the expression of a powerful inherent human appetite. Even education, the exhibition of pictures showing the ravages of these diseases, impassioned pleas against exposure to them, none prevent the human being from exposing himself to venereal infection. Hence other methods become necessary.

While there may be moral issues involved in extramarital sexual expression it is of compelling importance that the public and personal health problems of the state and individual be recognized. If it is impossible to prevent exposure of the individual to venereal disease it is possible to do something to lessen his chance of infection materially. Mr. Carl Warren in his unusually well written, thoroughly informative little book "On Your Guard" (Emerson Books) tells what and how. In 160 pages he discusses the preven-

tion of venereal disease from an eminently realistic point of view. The beclouding matter of morality is not introduced. Experiences within various units of the army and navy of the United States are presented.

The types of prophylactics are delineated. Specific directions for their use pointed out. The importance of using them to avoid disease is stressed that the appalling loss of time and man power which focuses the attention of the Public Health Service upon this serious problem may not be required a generation hence. In passing it may be mentioned that in Copenhagen and Denmark it is often difficult to find a case of syphilis for demonstration to medical students, so successfully has the problem been solved in that country.

Finally, recognizing that despite the proper use of prophylactic methods infection is still possible. Mr. Warren describes the early symptoms of venereal disease. He makes it clear that gonorrhea is not just a bad cold, that syphilis is not just a local sore. He urges prompt and continuous treatment by a competent physician. He points out the insidious inducements of quacks and other unqualified healers. His whole book is humane, typical of the humanity that deals with reality, seeks to ameliorate the ravages of disease to which uncontrolled or poorly controlled biologic urges expose men and women. It may be read with profit by every person having to deal with those just growing into manhood and womanhood; it should be recommended to the perusal and study of the young men and women of every community. It is a common sense discussion of real issues unbesmirched by sentimentality or obscenity.

It gets off to a slow start; it never really quickens the pulse; there is no great suspense as to what is coming. Withal, there is something about "High Wall" by Alan R. Clark (Harrison Smith and Robert Haas, New York) that keeps one going on and on—to a thoroughly unexpected ending which may be considered unguessable by even the most hardened detective story reader; but the end is thoroughly in keeping with what has gone before.

In the strictest sense, "High Wall" is not a detective story. It is a running account of life within the cottages and corridors of a high class sanitarium for mentally disturbed guests. In particular the emotional peregrinations of one guest are followed until we are led to believe that he has made a complete recovery. Like Seabrooke whose "Asylum" may inaugurate a vogue in light fiction, David Stephen was an alcoholic, a confirmed drinker who found happiness and oblivion in too frequent indulgence.

The book details his gradual improvement under the probing scrutiny of the staff physicians spurred on by head doctor, Special Delivery Seyerling. His contacts with the other guests who may have been a bit "wacky" (insane is forbidden within the confines of the sanitarium), his reaction to other patients, to nurses, to attendants, his slow return to reality under the emotional stress of a situation as bizarre as any I have read, all are unfolded if not in breathtaking sequences, at least so that I really wanted to know what was going to come next.

The incredible ingenuity, the diabolic cunning, the persistent, careful planning sometimes exhibited by the insane is strikingly portrayed in Crosby's escape, in Treat's suicide. All in all "High Wall" will provide entertaining reading for an evening or two and the picture it affords of the diseased mind is reasonably satisfactory. Perhaps you will have to finish it all at one sitting.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

Dent County Medical Society, January 8, 1937.

MISSOURI STATE MEDICAL ASSOCIATION —80TH ANNUAL MEETING

Cape Girardeau, May 10, 11, 12, 1937

PRELIMINARY PROGRAM

Guests

Hertzler, A. E., Halstead, Kansas: Title to be announced.

Miller, Norman F., Ann Arbor, Michigan: Obstetrics.

Parker, Walter W., Cape Girardeau: A Pedagogue Looks at the Doctors.

Pearse, Herman E., Jr., Rochester, New York: The Care of Infections of the Neck and Their Complications, Mediastinitis.

Scientific Papers

Allen, Duff S., St. Louis: Toxic Goiter in the Aged.
Asher, Graham, Kansas City: Improving the Care of the Cardiac Patient in the Small and Community Hospital.

Beisbarth, Carl, St. Louis: Errors of Refraction in Children.

Black, Donald R., Kansas City: Modern Treatment of Diabetes.

Bower, Richard L., Kansas City: Treatment of Facial Injuries.

Bradford, O. F., Columbia: Résumé of Work in the State.

Caulk, John R., St. Louis: Gonorrhea in the Male.
Conley, Dudley S., Columbia: Address of President-Elect.

Fischel, Ellis, St. Louis: Early Recognition and Treatment of Cancer.

Fletcher, Paul F., St. Louis: Résumé of Work in the State.

Furlow, Leonard T., St. Louis: The Importance of the Early Recognition of Neurosurgical Conditions.

Gay, L. P., St. Louis: Diagnosis and Treatment of Food Allergy.

Ginsberg, Morris, Kansas City: The Doctor's Heart.
Hildreth, L. Rommel, St. Louis: Retinal Detachment; Its Recognition and Treatment.

Hoffmann, R. Lee, Kansas City: Presentation of Complicating Urological Diagnoses.

Hunt, Paul F., Kansas City: Diagnosis and Treatment of Cholelithiasis and Extraductal Stones.

Jones, J. Laurence, Kansas City: Reduction of Femoral Neck Fractures Using Positive Radiographic Control. (Colored motion picture.)

Kirchner, W. C. G., St. Louis: Acute Diverticulitis of the Sigmoid.

Knight, John S., Kansas City: Diagnosis and Treatment of Diseases of the Esophagus.

McBryde, Cyril M., St. Louis: Borderline and Atypical Hyperthyroidism.

McCaughan, John M., St. Louis: Prolonged Stimulation of Autonomic Nerves; Immediate and Remote Effects on the Bladder, Rectum and Colon.

McCutcheon, L. G., St. Louis: Treatment of New Growths with Roentgen Ray Therapy Using the Contact Method.

Miller, E. A., and Paul, T. M., St. Joseph: Etiology of Primary Glaucoma and Its Physiologic Treatment.

Miller, E. Lee, Kansas City: Appendicitis.

Moore, Neil S., and Tapper, S. M., St. Louis: Chronic Prostate, What the Average Practitioner Should Know About It.

Newell, Quitman U., St. Louis: Gonorrhea in the Female.

Rinkel, Herbert J., Kansas City: Respiratory Allergy; Its Diagnosis and Treatment.

Robinson, G. Wilse, Jr., Kansas City: The Addiction of Patients to Various Barbituric Acid Derivatives.

Roble, Melvin A., St. Louis: Vaginitis and Cervicitis.

Smith, Clinton K., Kansas City: A Revised Conception of Early Prostatic Hypertrophy.

Vohs, Carl F., St. Louis: Medical Economics.

Woolsey, Ross A., St. Louis: Address of the President.

ADAIR-SCHUYLER-KNOX-SULLIVAN COUNTY MEDICAL SOCIETY

The Adair-Schuyler-Knox-Sullivan County Medical Society was called to order February 4 at Kirksville at 7:30 p. m. by the president, Dr. S. L. Freeman, Kirksville.

A telegram from the Marion-Ralls County Medical Society opposing the state general hospital at Columbia was read and by vote the cancer wing was approved but the general hospital opposed.

The Society went on record as favoring bills for compensation in accident cases having priority claim.

Dr. R. P. C. Wilson, Marshall, superintendent of the State School, gave a good talk on "Feeble-mindedness in Missouri."

The Society voted unanimously to support sterilization legislation when that subject is presented to the legislature.

J. S. GASHWILER, M.D., Secretary.

BOONE COUNTY MEDICAL SOCIETY

The annual dinner meeting and election of officers of the Boone County Medical Society was held at the Harris Cafe at 6:30 p. m. December 1, 1936, Columbia.

After an excellent dinner and discussion of routine business the election of officers resulted as follows: President, Dr. R. S. Battersby, Columbia; vice president, Dr. W. O. Fischer, Columbia; secretary-treasurer (reelected), Dr. Maurice E. Cooper, Columbia; member of board of censors, Dr. D. A. Robnett, Columbia; delegate, Dr. M. Pinson Neal, Columbia; alternate delegate, Dr. W. J. Stewart, Columbia; member auxiliary committee on public policy, Dr. D. A. Robnett, Columbia.

Dr. D. A. Robnett, Columbia, presented a program consisting of an excellent series of slides on cancer in which he showed materials now being used in lay education and enlightenment throughout the state.

Meeting of January 5

The Society met in McAlester Hall at 7:45 p. m. with members of adjacent county medical societies and

the second year class in medicine in the University of Missouri as guests. About fifty were present.

In the absence of the president the vice president, Dr. W. O. Fischer, Columbia, called the meeting to order.

The board of censors reported favorably on the application of Dr. Joseph T. Caples and he was elected by acclamation.

The secretary read a communication from Dr. R. S. Battersby in which he regretted his inability to fill the office of president for this year. Dr. Battersby has been in bad health for over a year and he explained in his letter that he did not feel that he could take on the responsibilities of the office at this time. This constituting a resignation the vice president, Dr. W. O. Fischer, automatically became president. Dr. Dan G. Stine, Columbia, was elected vice president by acclamation.

Dr. F. I. Wilson, Kansas City, gave a complete and extremely interesting paper on "Surgery of Cancer of the Rectum." Dr. Wilson's discussion evaluated the merits of various operations for the removal of cancerous growths of the descending, sigmoid and rectal colons and in discouraging the use of radium exclusively acknowledged its value as an accessory to thorough surgery. He brought out the importance of early diagnosis, the value of such symptoms as alteration in gut motility as evidenced by increasing or decreasing constipation and gas in previously regular individuals, pointing out that hemorrhage is not always the earliest sign of developing cancer of the rectum.

Dr. F. C. Helwig, Kansas City, presented a masterful, entertaining and instructive discussion of the pathological diagnosis and classification of cancer of the rectum. His clever method of approach to his subject and the extensive use of well selected lantern slides produced enthusiastic applause at the close of his lecture.

After considerable favorable discussion of the two papers the meeting was adjourned.

Meeting of February 2

The Society met in the Boone County Hospital dining room at 6:30 p. m. The members were guests of Miss Eleanor Keely, superintendent of the Hospital, at dinner. Thirty members were present.

The board of censors reported favorably on the application of Dr. W. B. Brown and he was made a member.

The secretary read the president's newly appointed committees for the year as follow: Committee on program and entertainment, Dr. M. Pinson Neal, chairman, Drs. Robert H. Simpson and D. A. Robnett; committee on lay projects, Dr. F. G. Nifong, chairman, Drs. Dudley S. Conley and F. E. Dexheimer; committee on public health and legislation, Dr. E. D. Baskett, chairman, Drs. Newell R. Ziegler and A. R. McComas.

Dr. M. Pinson Neal, Columbia, newly appointed chairman of the program committee, made a brief address of thanks for the excellent attendance and support at the first meeting under the new regime. He outlined plans for the future programs of the year, stating that emphasis should be placed on the use of material from the Society and that outside talent would be utilized only once or twice a year at the regular meetings. He suggested that early in the fall, perhaps the first meeting after vacations, a good will barbecue dinner and scientific meeting be held to which members from county societies surrounding Boone County would be invited. It was suggested that a dinner be held each month before the regular meeting.

It was suggested that the secretary write a letter of appreciation to Miss Keely for her excellent dinner and entertainment of the Society.

At the suggestion of Dr. A. R. McComas, Sturgeon, the secretary read Senate Bill No. 3 which is an act

to provide for the establishment of a State General Hospital in Columbia. Resolutions from the Marion-Ralls County Medical Society objecting to the passage of this bill were read. Considerable discussion ensued led by Drs. McComas, Nifong, Neal and Baskett. A motion was made that the Boone County Medical Society go on record as heartily endorsing the bill and that the secretary write a letter to the senator and representative from the district informing them of this action and stating that the endorsement represents the unanimous opinion of thirty practicing physicians in Boone County. The motion was seconded and carried.

Dr. O. F. Bradford, Columbia, spoke on fermentative diarrheas of dietary origin in infants. Dr. Bradford's discussion was scholarly and interesting. His preliminary remarks concerning the physiological chemistry of digestion served to pave the way for his subsequent discussion. While recognizing the existence of diarrhea of dietary origin in infants he further pointed out that by far the majority of such diarrheas result from infections and that possibly diarrheas previously assigned to pure fermentative disorders were in all probability infections made possible by digestive disturbances due to overfeeding, underfeeding or other dietary indiscretions. Discussion was opened by Dr. R. S. Battersby, Columbia, who, after expressing his delight with the material covered in Dr. Bradford's paper, called attention to the fact that many diarrheas apparently result from the injudicious use of too much glucose and other sugars in the artificially fed baby. Additional discussion was by Dr. Ziegler and others.

Dr. C. M. Sneed, Columbia, talked on "Otitis Media." He covered the subject in an excellent manner and brought out the importance of the early recognition of conditions which might possibly give rise to middle ear infections and of early consultation with competent otologists in an effort to prevent serious ear infection. Discussion of this paper was opened by Dr. C. R. Bruner who augmented several of the points brought out by Dr. Sneed suggesting likewise even the possibility of otitis media developing as an accessory or associated condition with diarrheas of infancy. Further discussion was by Dr. O. F. Bradford who cited instances in which middle ear infection had followed closely on the presence of diarrhea in infants, in which otitis media coming on insidiously and unexpectedly had resulted in serious complications.

MAURICE E. COOPER, M.D., Secretary.

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society met December 2 at the Missouri Methodist Hospital at 8 p. m. with the president, Dr. J. M. Allaman, in the chair. Fifty members were present.

Dr. H. E. Peterson, chairman of the program committee, announced the installation meeting will be held December 16.

Dr. Charles G. Geiger discussed the disposition of the library given to the Society by the late Dr. Jacob Geiger. He suggested that a letter of acceptance by the secretary should be sent to him which the secretary was instructed to do.

A letter from Dr. J. S. A. Ergas withdrawing his application for provisional membership in the Buchanan County Medical Society was read.

The following officers were elected: President, Dr. Charles Greenberg; vice president, Dr. C. S. Branson; secretary, Dr. O. Earl Whitsell; treasurer, Dr. J. M. Bell; delegate (1937-1938), Dr. F. H. Spencer; alternate (1937-1938), Dr. L. H. Fuson; censor (1937-1938-1939), Dr. G. A. Lau; censor (1937-1938), Dr. J. I. Byrne; censor (1937), Dr. F. X. Hartigan; member,

committee on public policy, Dr. L. Paul Forgrave; member board of trustees until 1942, Dr. W. J. Hunt.

Meeting of December 16

The regular installation meeting for 1936 was held at the Moila Club on December 16 with fifty-five members present.

The officers for 1937 were duly installed, the vice president, Dr. J. T. Stamey, administering the oath of office.

The program committee furnished a delightful banquet and everyone present enjoyed the fellowship and entertainment.

Meeting of January 6

The Society was called to order at the Missouri Methodist Hospital by the president, Dr. Charles Greenberg, at 8 p. m. with forty members present.

Dr. J. M. Bell gave the treasurer's report for 1936.

It was moved by Dr. T. L. Howden and seconded by Dr. W. T. Elam that Dr. Fred Eliscu be made an honorary member and his dues for the last two years be rescinded.

In spite of a blizzard and icy pavements the guest speakers drove from Kansas City and gave an instructive program. The program was arranged through the courtesy of the Committee on Cancer of the State Medical Association. Both speakers were introduced by Dr. A. B. McGlothlan who paid high tribute to their worth and work.

Dr. Ferdinand C. Helwig, Kansas City, spoke on "Diagnosis and Certain Phases of Treatment of Cancer of the Rectum." Among the many valuable points brought out he emphasized particularly (1) adequate examination, especially digital, (2) the familial characteristic and tendency to become malignant of intestinal polypi and (3) slow growth and relatively good prognosis of rectal cancer when recognized early and treated by surgical removal.

Dr. C. Edgar Virden, Kansas City, treated his subject "Roentgen Ray Diagnosis of Malignant Diseases of the Colon and Rectum" in a practical manner. He stressed that the patient should come to the radiologist after a complete physical examination. He also stressed the uniformity of the appearance of the roentgen ray picture of a malignancy of the intestine and contrasted this finding with the changing picture in spasm. A timely suggestion made by the essayist was that a negative roentgen ray examination should not be taken as final in the face of positive clinical findings.

The papers were discussed by Drs. Hilan K. Wallace, F. Gregg Thompson, L. Paul Forgrave, A. B. McGlothlan and W. T. Elam, Drs. Helwig and Virden closing.

O. EARL WHITSELL, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society met at Simpson's Colonial Tavern, January 11, at 8 p. m., with the following members present: Drs. B. W. Hays and Rusby Seabaugh, Jackson; C. A. W. Zimmermann, J. H. Cochran, P. B. Nussbaum and M. H. Shelby, Cape Girardeau.

It was moved by Dr. C. A. W. Zimmermann and seconded by Dr. P. B. Nussbaum that Dr. J. H. Cochran be elected alternate delegate to the State Association meeting for 1937. The motion carried.

An application for membership from Dr. Joe Russell was read and referred to the board of censors for final action at the next meeting.

It was moved and carried that Dr. B. W. Hays be a committee of one on the auxiliary committee on pub-

lic policy, this in compliance with a request from the state Secretary.

The chair appointed a committee on medical economics consisting of Drs. D. H. Hope, J. H. Cochran and P. B. Nussbaum, Cape Girardeau.

The board of censors reported favorably on the application of Dr. Herbert and he was unanimously elected to membership.

It was moved and carried that the communication from the Committee on Cancer of the State Association in which they offered to send a speaker on "Cancer of the Rectum" be referred to the Society's committee on cancer.

The president, Dr. B. W. Hays, appointed Drs. J. H. Cochran and M. H. Shelby to audit the treasurer's books for the year 1936.

M. H. SHELBY, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

At a special meeting of the Greene County Medical Society at the Colonial Hotel, Springfield, January 29, Dr. W. J. Bryan and the staff of the Missouri State Sanitarium, Mount Vernon, presented a program on "Case Reports and Roentgen Ray Findings in Interesting Conditions of the Chest."

The meeting was preceded by a buffet supper with forty members and guests present.

Following the meeting Dr. F. T. H'Doubler, Springfield, made the following motion which was carried unanimously: "That the secretary of the Greene County Medical Society be instructed to write the Secretary of the Missouri State Medical Association and respectfully urge that the state organization post a cash reward for the apprehension of the malefactors or abductors of our fellow physician, Dr. J. C. B. Davis, Willow Springs, who was lured from his office about 5 p. m., January 26, 1937." It was hoped by those present that any such action might aid in the solution of the mysterious disappearance of the doctor.

H. LEE HOOVER, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society held a dinner meeting and installation of officers in the Empire Room of the Connor Hotel, Joplin, at 6:30 p. m., January 12. Forty-seven members and visitors were present.

An application for membership for Dr. Marvin Carter Davis was read and referred to the board of censors.

A transfer for Dr. Carl William Poor from the Lawrence-Stone-Barry County Medical Society was read. Dr. Poor was accepted as a member by transfer.

After a discussion concerning the financing of radio broadcasts by Dr. W. M. Kinney and Dr. John W. Barson the matter was deferred until the next regular business meeting.

Dr. O. T. Blanke, Joplin, the retiring president, read the names of Dr. W. H. Mallory and Dr. J. W. Hardy as those being lost to the Society by death during the last year. The names of the following new members were read: Drs. George H. Bragdon, Reeds; Maxwell Harris and W. M. Howard, Carthage; Miller O. McNay, Aurora; W. W. Hurst, Joplin, and C. N. Outt.

The officers for 1937 were installed and the gavel presented to the new president, Dr. Paul Walker, Joplin.

Dr. W. W. Peters, Window Rock, Arizona, director of the Navajo-Hopi Areas (United States Indian Service) delivered an interesting talk on China and Germany.

The meeting was then turned over to the entertainment committee which presented a floor show.

Meeting of January 27

The Society held its regular meeting at the Connor Hotel at 8 p. m.

A letter from Dr. Logan Clendening, Kansas City, explaining why he had not been present at the dinner meeting on January 12 was read.

The application of Dr. G. C. McCormack was again presented and the secretary was instructed to return it to him to be signed by the necessary sponsors.

The application of Dr. Marvin Carter Davis was returned approved by the board of censors and he was duly accepted a member.

The application of Dr. Charles L. Hoagland, Carthage, was read and ordered referred to the board of censors.

Dr. Sam Grantham, Jr., Joplin, was named program director and briefly outlined the schedule and suggested that open discussions be limited to two minutes. Programs were further discussed by Drs. Paul Walker, H. D. McGaughey and John W. Barson, Joplin.

Dr. R. N. James, Joplin, was appointed chairman of the legislative committee.

A committee was appointed by the president to contact the State Association regarding back dues of delinquent members, the committee to be given the power to act. The committee appointed was Drs. H. D. McGaughey, O. T. Blanke and M. H. Black, Joplin.

Dr. W. M. Kinney, Joplin, chairman of the radio committee, reported that a contract for thirty-six broadcasts had been signed, the contract to be binding only if, as and when paid for. It was duly moved and seconded that each member be contacted and informed that radio broadcasts cost \$7.50 each and that if they wanted the broadcasts they should send in that amount. If the members do not like the broadcasts the money is to be sent in anyhow. An amendment was offered as follows: "Each member be contacted and asked if they favored the radio broadcasts." Motion carried but amendment did not.

It was duly moved and seconded but not carried that the accrued bill for radio broadcasting be paid out of the Society's funds and that future broadcasting expenses be met by donations.

Dr. Jesse Douglas and Dr. B. E. DeTar volunteered to finance the next two broadcasts.

Dr. H. D. McGaughey, Joplin, made the treasurer's report giving the balance of cash on hand and showing that the Society was spending almost the entire income in the course of a year.

Dr. H. D. McGaughey, Joplin, suggested that mimeographed copies of the minutes of each meeting be sent to the members.

W. M. BLACK, M.D., Secretary.

NODAWAY COUNTY MEDICAL SOCIETY

The Nodaway County Medical Society met at the St. Francis Hospital, Maryville, at 8 p. m. on December 2.

The following officers were elected for 1937: President, Dr. L. E. Egle, Maryville; vice president, Dr. Hiram Dav, Maryville; secretary-treasurer, Dr. W. R. Jackson, Maryville; delegate, Dr. W. R. Jackson, Maryville; alternate delegate, Dr. C. D. Hummer, Barnard.

The scientific program consisted of motion pictures on "Breast Surgery," "Plastic Surgery" and "Repair of Harelip."

W. R. JACKSON, M.D., Secretary.

PERRY COUNTY MEDICAL SOCIETY

The Perry County Medical Society was called to order by the president, Dr. O. A. Carron, Perryville, at 8:30 p. m., November 24 at Perryville.

The application of Dr. R. C. Conrad, Perryville, was reported as approved.

It was moved and passed that a resolution be drawn up in regard to the undesirable practice of the Cape Girardeau local radio station in broadcasting admission of patients and frequently the type of operation, etc., all of which frequently proves embarrassing to the patients and is considered by the profession as not absolutely in accordance with a high type of ethics. This resolution will be considered at the next meeting.

It was moved and passed that a resolution be drawn up and considered at the next meeting in regard to physicians' names being attached to news items of patients in local papers, professional cards in papers and year books and the advertising of specific patent medicines in the local papers.

It was moved and passed that the application of Dr. J. H. Graff, deceased, on file in the secretary's books be approved and he be considered a member of the Society because, due to his death, his membership was never completed but his intentions were so directed. This was for the purpose of making his widow, Mrs. Elna Graff, eligible for membership in the Woman's Auxiliary to the Perry County Medical Society.

It was unanimously decided to give the Woman's Auxiliary of the Society, which is now being organized, the full support of the Society.

J. J. BREDALL, M.D., Secretary.

Meeting of January 20

The Society held its regular meeting January 20 in the office of Dr. O. A. Carron, Perryville, with 100 per cent attendance.

Officers for 1937 were elected as follows: President, Dr. B. T. Koon, Perryville; secretary-treasurer, Dr. O. A. Carron, Perryville; delegate, Dr. G. A. Blaylock, Perryville, and alternate, Dr. J. J. Bredall, Perryville.

The president appointed Dr. B. T. Koon to the auxiliary committee on public policy and Dr. G. A. Blaylock as medical adviser to the Woman's Auxiliary.

The members joined the Woman's Auxiliary at the home of Dr. and Mrs. J. J. Bredall and viewed with interest a number of medical motion picture films.

O. A. CARRON, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met January 13 at 2:50 p. m.

A quorum not being present Dr. Julius Jensen, St. Louis, was asked to proceed with his talk on "Medical Progress." The Woman's Auxiliary had been invited to attend this part of the program and a number of women present joined the meeting.

"Medical Progress" is a lecture originally prepared for the Engineers' Club to whom it will be presented January 28. It is, therefore, suitable for a lay audience and describes the development of medicine from the earliest times to the present. It is abundantly illustrated with lantern slides showing portraits of men prominent in the profession, episodes pertaining to medical activities of various times and caricatures by various artists including Hogarth, Goya and Daumier. These caricatures illustrate the way in which the public at various times have looked at the medical profession. Special attention was given to the lives of some of the greatest men such as Harvey, Sydenham, William and John Hunter and parallels were drawn between them. It was shown how from time to time medicine has largely progressed in a mechanical way; ethically and morally there has been comparatively little change. Illustrations were given of this. It was also emphasized how the great advances were largely

due to the genius of observers and less to institutions and laboratories.

A vote of thanks was extended to the entertainment committee for the excellent achievement on January 6 in the dinner for the installation of officers at the Norwood Country Club.

Partly because of the advanced hour no further business was transacted.

JULIUS JENSEN, M.D., Secretary.

BOOK REVIEWS

NEW AND NONOFFICIAL REMEDIES, 1936, Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1936. Cloth. Price \$1.50. Pp. 542. Chicago: American Medical Association, 1936.

The appearance of the new U. S. P. XI has made necessary an extensive revision of this year's edition of New and Nonofficial Remedies. This seems somewhat paradoxical in view of the name of the Council's valuable book. But the fact is that there have always been included in New and Nonofficial Remedies a great many official drugs. Manufacturers apparently have appreciated the distinction given their brands by Council acceptance, and the public and the medical profession have certainly benefited by the Council's supervision of advertising claims for products the fundamental value of which has already been established. Of the fifty-four therapeutic agents added to the Pharmacopoeia, forty-one as nonofficial preparations stood accepted for New and Nonofficial Remedies.

In most cases the New and Nonofficial Remedies tests and standards were taken over in whole or in part by the Pharmacopoeia. This is eloquent evidence of the wisdom of the Council's selections since the appearance of the U. S. P. X.

Among the new products described in this edition of New and Nonofficial Remedies are Isopropyl Alcohol, Aminoacetic Acid, Larocaine Hydrochloride, Alurate and Sodium Alurate, Ipral Sodium, Ephedrine Hemihydrate, Azochloramid, Beta-Lactose, Pyrethrum Ointment, Meningococcus Antitoxin and Staphylococcus Toxoid.

Noteworthy revisions have been made of the chapters on Bismuth Compounds, Organs of Animals and Serums and Vaccines. These annual revisions place each succeeding edition of New and Nonofficial Remedies in a class by itself as an authoritative guide to therapeutic progress.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1935, with the Comments That Have Appeared in *The Journal*. Cloth. Price \$1. Pp. 139. Chicago: American Medical Association, 1935.

The contents of the 1935 volume of collected reports of the Council fall roughly into three classifications: preliminary and special reports, reports on the omission of products from New and Nonofficial Remedies, and reports on products held unacceptable for N. N. R. The medical products concerned thus fall respectively into the following groups: products which have been considered and found promising but not as yet fully acceptable, products which have been accepted but have not continued to meet the standards of acceptability, and products which on initial or continued consideration have been found definitely unacceptable. It is

understood, of course, that the term "acceptable" implies that the product has sufficient value or promise of value to be used by the general medical profession and further that it is marketed in accordance with the Council's rules.

The Council's preliminary reports cover the first line of therapeutic advance. In general these reports give a review of the evidence for products representing the latest therapeutic investigation and indicate the procedure and requirements necessary for their ultimate admission to the physician's armamentarium. In this volume the report on progynon-B touches on the active and promising field of ovarian hormone therapy and the report on vitamin A and urinary lithiasis sets up a warning sign in the chaotic no man's land of overenthusiastic claims for vitamin therapy. An additional pronouncement in this field is found in the report on shotgun vitamin therapy. The Council is indeed to be commended for its rational stand in its attempt to clear up the mists of pseudoscience that have invaded this field.

One is tempted to mention each one of the valuable reports included in this volume, but the limits of a review must be observed. Attention must, however, be called to the reports on omission from New and Nonofficial Remedies of Caprokol and Hexylresorcinol Solution S. T. 37 as illustrative of the judicial fairness and careful procedure of the Council on Pharmacy and Chemistry of the American Medical Association.

ROENTGEN INTERPRETATION. A Manual for Students and Practitioners. By George W. Holmes, M.D., Roentgenologist to the Massachusetts General Hospital and Clinical Professor of Roentgenology, Harvard Medical School, and Howard E. Ruggles, M.D., Roentgenologist to the University of California Hospital and Clinical Professor of Roentgenology, University of California Medical School. Fifth edition, thoroughly revised. Illustrated with 243 engravings. Philadelphia: Lea & Febiger. 1936. Price \$5.00.

As an introduction into the diagnostic features of roentgenology this standard text of Holmes and Ruggles has achieved an enviable reputation. For the general practitioner who attempts to conduct his own roentgen ray laboratory there is no better book to have within easy reach. This new edition shows careful revision of text, increased clarity of characteristic roentgenograms and additional paragraphs upon new and reliable features of roentgen progress.

The contents give reasonable allocation of space to the natural anatomical divisions of roentgenology. There is a comprehensive index which is always valuable. After introductory chapters upon Confusing Shadows and Artifacts, Anatomical Variations and Development, there are the interpretative chapters upon Fractures; The Skull; The Spine; Joints, Tendons and Bursae; The Chest (splendid); The Gastro-Intestinal Tract (including intravenous and retrograde urography); and the last chapter upon Fluoroscopic Technique is commendable and should be memorized by that vast number of general practitioners who are again indulging themselves with small portable roentgen ray apparatus and frequently without benefit of safety measures or of fundamental knowledge of what they are capable of seeing.

Holmes and Ruggles are two of the great teachers of roentgenology. Holmes is from conservative Boston, Ruggles from cosmopolitan San Francisco. Thus East meets West to produce this most serviceable textbook in the expanding field of roentgen interpretation.

E. H. S.

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REGIONAL ENTERITIS

LEO H. POLLOCK, M.D.

KANSAS CITY, MO.

Regional enteritis is a quite common disease of the intestine which was segregated as a subgroup from the undefined granuloma. It is characterized by a nonspecific proliferative inflammatory reaction in the intestine which produces local stenosis and fistula formation. It was termed "regional ileitis" when first described by the clinic of the Mt. Sinai Hospital in 1932 because only the terminal ileum was involved in the first series. However, identical lesions have been found elsewhere in the intestine so that "regional enteritis" or "chronic cicatrizing enteritis" are more comprehensive names.

Many cases of unrecognized regional enteritis have been recorded as atypical chronic appendiceal abscess, typhlitis, ileocecal tuberculosis or carcinoma. However, the subsequent clinical course did not follow the usual progress of the disease. In the patients in whom an appendiceal abscess had been diagnosed because of a mass in the right iliac fossa, the symptoms had been milder than would be expected in appendicitis. The complaint suggested a mild colitis with incomplete intestinal obstruction. At operation, the localized pus was white and not odorous; the appendix could not be easily found. The draining wound soon developed into a fecal fistula which resisted subsequent repeated simple methods of closure. Perhaps, at a later exploration, the appendix appeared to be innocent of the original pathology and the terminal ileum was indurated and distorted.

As a second example, the diagnosis of typhlitis may have been made at laparotomy for an acute intra-abdominal infection. The appendix, terminal ileum and even the cecum were indurated, reddened and somewhat elastic. The

mesentery to the involved intestine was edematous and contained hyperplastic glands. The appendix was removed for want of a better thing to do. This was reported as showing only periappendicitis. Several months later, the patient developed progressive pain, diarrhea and even drainage of intestinal contents from the wound which had healed in the interim.

A diagnosis of ileocecal tuberculosis or carcinoma may have been made at operation because of the adherent, reddened, hyperplastic and distorted intestine. Biopsy of the bowel wall and mesenteric glands showed only a nonspecific inflammatory process. These were recorded as a questionable intestinal tuberculosis or as a chronic intestinal granuloma of unknown etiology.

It is only by the analysis of a large group of well studied cases that regional enteritis can be more generally recognized and rationally treated. The leading investigations were made by Crohn, Ginzburg and Oppenheimer who first described this entity.¹ In the first cases only the terminal ileum was involved. Since then the study of larger series has broadened the original concept of the disease.² A similar granulomatous process has been seen involving other parts of the intestine; for example, the jejunum and proximal portion of the colon. This latter type, the combined form, is not to be confused with ulcerative colitis.

INCIDENCE

The ages involved ranged from 14 to 54 years, with an average of 24 years. It occurred twice as frequently in males as in females. There may be a racial disposition. The majority of cases have been seen at the Mount Sinai Hospital in New York City and at the Beth Israel Hospital in Boston.

SYMPTOMS

Regional enteritis is easily recognized because of the fairly typical clinical course. It should be suspected, generally speaking, in young adults who have symptoms of mild colitis

Former Resident in Surgery, Mount Sinai Hospital, New York City.

Presented at the meeting of the Jackson County Medical Society, October 27, 1936.

and recurrent appendicitis; especially when a mass is present in the right iliac region. In 25 per cent of the cases, the initial symptoms so resembled appendicitis that an appendectomy had been performed from one half to two years before their present admission to the hospital. The principal complaints are abdominal pain, diarrhea, loss of weight, fever, increasing weakness, vomiting and blood in the stools.

Abdominal pain and diarrhea are most often the first symptoms. Pain is present in three fourths of the patients. It is dull and colicky and is felt over the lower abdomen. It often accompanies and is usually relieved by defecation. In the obstructive stages of the disease the pain localizes to the lower right quadrant, is most severe and is felt at the height of hyperperistalsis. When the terminal ileum has an internal fistula, as to loops of ileum in the pelvis, to the sigmoid or to the ascending colon, the pain may radiate to these points. There is no tenesmus on defecation.

Diarrhea is present in half the patients. It is sometimes troublesome but is not as marked as in ulcerative colitis. There are three or four daily loose movements which may be unformed or semiformed. Strings of mucus are sometimes seen. Gross blood is present in half the cases complaining of diarrhea. In the later stages there may be constipation alternating with watery movements.

Fever occurs in cycles. It is never high and may rise to only 101° F. Some patients may never have an elevated temperature.

Loss of weight, anorexia and weakness are seen in 60 per cent of the cases, becoming noticeable after the onset of pain and diarrhea. The weight loss may be marked. The abdomen becomes thin in the advanced stages so that the mass is easily felt and peristalsis seen. The debility is most marked in the presence of a chronic fecal fistula.

Vomiting occurs in 28 per cent of the patients. It is seen in the obstructive stage and accompanies hyperperistalsis.

Secondary anemia of varying degree is present. The erythrocyte count may drop to two million with a hemoglobin of 35 per cent.

PHYSICAL EXAMINATION

The chronic form of regional enteritis is the type most often encountered. The characteristic findings are:

1. A mass in the right iliac fossa is palpable in 58 per cent of the cases. It is usually ovoid, measures about 2 by 3 inches, is somewhat tender, smooth or slightly nodular and often not movable. It is composed of the indurated terminal ileum and mesentery, hyperplastic glands and mesenteric abscesses. Displacement to the

left may be due to an adhesion or internal fistula to the sigmoid while an upward position may be due to adherence to the ascending colon. Sometimes it is felt only by rectal or vaginal examination because of its deep pelvic location.

2. Evidence of intestinal obstruction occurs in practically all the advanced lesions. It is due to the edema and fibrosis of the terminal ileum and ileocecal valve. There are attacks of lower abdominal colic, slight distention, visible peristalsis and borborygmi. The discomfort is relieved as the intestinal contents pass through the stenotic area. In the acute form of the disease vomiting is minimal and cramps and nausea are more severe than in acute appendicitis.

3. Fistula formation is seen in 36 per cent of the patients. The external fistulae are due to (a) the drainage of an abscess due to regional enteritis which may have been erroneously diagnosed as appendiceal in origin; (b) the mistake of removing only the appendix in an unrecognized enteritis; several months later, a small abscess may develop in the well healed wound and on opening this the communication is established with the lumen of the bowel; (c) the liberation of intestinal adhesions with the inadvertent exposure of an overlooked internal fistula, and (d) the dangerous and unnecessary insertion of a drain after resection.

Internal fistulae are present in 20 per cent of the cases. At first they are thin walled and penetrate into the mesentery of the terminal ileum. The adherence of loops of bowel permits perforation into the sigmoid, ascending colon or other loop of ileum. They form mesenteric abscesses containing white, thick and almost odorless pus. The old fistula is surrounded by an advancing wall of fibrous tissue so that perforation into the free peritoneal cavity is almost never seen. The fistulae that point outward to the anterior abdominal wall are often mistaken for appendiceal abscess.

ROENTGENOLOGY

Roentgen ray study is the most important facility in the diagnosis of regional enteritis. Special attention must be given to the small bowel and a definite procedure should be used.³ Certain aspects of the individual case make these studies advisable. They are (a) persistent symptoms of colitis in which barium enema, sigmoidoscopy, stool cultures and serological examinations are negative; (b) the presence of a mass in the lower right quadrant of the abdomen in a young adult; (c) cramps in the lower abdomen or an intractable fecal fistula following appendectomy or the drainage of an appendiceal abscess.

The roentgenologic changes of regional enteritis are pathognomonic in the majority of cases.

There is a constant narrowing of the terminal ileum 6 to 14 inches long which ends at the ileocecal valve. The defect is irregular; the margins are smooth with obliteration of the normal mucosal markings. Sometimes the segment is so irritable that only a thin string of barium or no filling will be seen. This must not be confused with the normal ileum which may not be satisfactorily demonstrated due to spasm. In regional enteritis the abnormal shadow is constant at reexamination. Fine internal fistulous tracts often are visualized by the barium.

The colon occasionally is involved. The proximal portion showed pathologic changes in 10 per cent of this series of regional enteritis, being limited to the cecum in four of the five cases. The cecum often shows changes due to extrinsic factors. Adhesions of the ileum or induration of the mesentery often cause a smooth external pressure defect on the medial side of the cecum. This is irregular in outline when due to internal fistulae or multiloculated abscesses. In the combined form of the disease, the granulomatous changes in the cecum, colon or jejunum are recognized by segments of irritability or hypermotility. An ileosigmoidal fistula may be recognized before operation.

Investigation of an external abdominal fistula is important. An ingested dye such as carmine red is given to disclose a communication with the lumen of the intestine. Lipiodol injected into the tract will demonstrate its ramifications.

PATHOLOGY

Regional enteritis has a characteristic appearance. It was limited to the ileum in 74 per cent of this series of 50 cases. It was first described in this form by Crohn, Ginzburg, and Oppenheimer as "regional or terminal ileitis." The wall of the terminal 10 to 14 inches of the ileum is infiltrated and edematous. The serosa is granular and reddened having many fine capillaries. The process ends at the ileocecal valve. The "skip areas" are indicated by islands of granular injected serosa which are situated orally to the main lesion and separated from it by normal intestine. The mesentery to this segment is edematous and has many hyperplastic glands. There may be abscesses containing whitish, nonodorous pus. The proximal intestine is often dilated due to the obstruction of the lesion. Agglutination of the ileum to the colon is common.

The lumen of the involved ileum is greatly diminished by the marked induration of the bowel wall. The process ends at the ileocecal valve which may be practically occluded. The normal intestinal folds are changed to a typical

cobblestone appearance due to the marked edema of the submucosa. Many irregular superficial erosions of the mucosa are seen. These are linear in type on the mesenteric edge. The mucosa of the appendix is not involved. Proximally, the edge of the lesion is irregular. Above this and separated by areas of normal bowel, there are islands of a similar hyperplastic process, i. e., the "skip areas." In the later stage, there are areas of mucosal atrophy interspersed between points of hyperplasia with polypoid excrescences. The serosa often has tubercles formed by the localized foci of fibrosis.

Microscopic changes are best studied on the proximal edge of the lesion. The wall of the intestine is greatly thickened by a nonspecific inflammatory process most marked in the submucosa and subserosa. There is edema with infiltration of fibroblasts, monocytes, lymphocytes and a few eosinophiles. Multinuclear giant cells are scattered about with no especial relationship to the monocytes. These are foreign body in origin and not tuberculous. Occasionally there are pale irregular structures which are thought to be cells of vegetable matter that have penetrated the bowel wall. Sections through the linear ulcerations on the mesenteric border show no inflammatory reaction early in the disease. Thin walled fistulae penetrate through the intestinal wall from the bases of these ulcers and enter between the leaves of the mesentery. In the later stage, there is extensive fibrosis of the submucosa and subserosa with atrophy of the mucosa.

In the combined form of the disease, the cecum or proximal colon is involved by a similar hyperplastic and granulomatous process. In 2 per cent of this series the jejunum and upper ileum had an identical nonspecific granulomatous lesion.

Three of the fifty cases studied had an acute onset and were termed as the acute form of regional enteritis, or regional ileitis. The symptoms were indistinguishable from those of appendicitis. At operation, the terminal ileum was indurated, rigid and injected; its edematous mesentery contained hyperplastic glands. No resection was performed and the patients recovered. To date, there have been no recurrence of symptoms. It is not known definitely that these so-called acute forms of terminal ileitis really represent the early stages of that chronic lesion defined as regional enteritis or chronic cicatrizing enteritis. Analysis of the case histories showed that the majority of patients with proved regional enteritis did not have an acute onset. In those patients who had had a previous appendectomy, attempt was made to study the original records. Of those that could be obtained, the majority had been operated on



Fig. 1. Regional enteritis in female, aged 22 years. Lesion shown by barium meal and enema. Terminal ileum is irregularly narrowed with obliteration of normal mucosal markings. Proximal ileum is moderately dilated. Note the semilunar defect on medial side of cecum caused by pressure of indurated and adherent ileum. Cecum and colon normal at operation. Cured by ileocecal resection and ileotransverse colostomy.

with the diagnosis of chronic or subacute appendicitis. Only moderate induration of the ileocecal region was sometimes noted. The only instances of acute onset of terminal enteritis were those having a mesenteric abscess or internal fistula which had been drained with the erroneous diagnosis of appendiceal abscess.

Several instances of ileocolitis have been reported in children who had extensive edema of the ileocecal angle.⁴ In these the peritoneal fluid was serous, clear and sterile. Three similar acute lesions have been seen in patients with primary streptococcic peritonitis.⁵ At autopsy, one was seen in a year old child and the second in a one month old infant. Extensive edema of the cecum and terminal ileum was present. A third patient who recovered was a 40 year old woman with symptoms of acute inflammation in the right iliac fossa. At operation a diffuse streptococcic peritonitis was found. The terminal 8 inches of the ileum was succulent, greatly edematous and reddened. The mesentery was thickened and had hyperplastic glands. The serosa of the appendix was quite reddened. The patient made an uneventful convalescence after appendectomy was performed. Section showed only acute periappendicitis. The mucosa was normal. These cases should not be considered as the acute form of regional enteri-

tis until the eventual course is followed. No etiologic bacterial agent has been isolated at the Mt. Sinai Hospital.

The etiology is unknown. Repeated cultures made from the mesentery, glands, peritoneal fluid, blood and feces have been negative. The extensive edema might indicate the etiologic factor to be a mutation or anerobic form of a hemolytic streptococcus.⁶ This is substantiated by the incidence of fatal streptococcic peritonitis that follow some resections. The appendix is not responsible for the inflammation. The periappendicitis is a continuation of the peritoneal reaction of the adjacent structures.

DIFFERENTIAL DIAGNOSIS

Ulcerative colitis is usually recognized by sigmoidoscopic and barium enema examinations. When the process is limited to the proximal colon, clinical differentiation from regional enteritis is difficult and often impossible. In 25 per cent of the severe cases of ulcerative colitis, the terminal ileum is involved by the regurgitation of the irritating cecal contents. On roentgen ray examination the ileum is not stenotic but is ulcerative as in the colon. In the combined form of regional enteritis, the lesion in the terminal ileum is advanced and stenotic; the proximal small intestine is dilated and the process



Fig. 2. Regional enteritis with persistent fecal fistula in male, aged 19 years. Lesion shown by barium meal and enema. Persistent fecal fistula and a mass in the right iliac fossa developed after an appendectomy one year previously. The stenosis of the terminal ileum is marked by the string like barium shadow. The fistula leads to the bulbous dilatation. Proximal loops of ileum are dilated.

in the proximal colon is hyperplastic. Ulcerative colitis is often complicated by perianal fistulae while this is never seen in regional enteritis. The cramps, mucus and blood in the stools are more marked in colitis and a mass is rarely felt.

Hyperplastic ileocecal tuberculosis is very rare but it may be confused with regional enteritis because of the similarity of symptoms and roentgen ray examination. The ulcerative form usually accompanies active pulmonary phthisis. The hyperplastic type is yet less common and may not be associated with lesions in the lungs. It is known that "many, if not the majority, of the so-called hyperplastic tuberculosis of the colon are really simple granulomata."⁷ A specimen of regional enteritis may be mistaken for intestinal tuberculosis because of the hyperplastic process and the presence of tubercles on the serosa. These, however, are due to focal fibrosis and foreign body giant cells. Tubercle bacilli have never been demonstrated in this series.

Malignancy of the cecum does not involve the terminal ileum and is generally seen in the later years. An ileosigmoidal fistula in a young adult should suggest regional enteritis, while in an

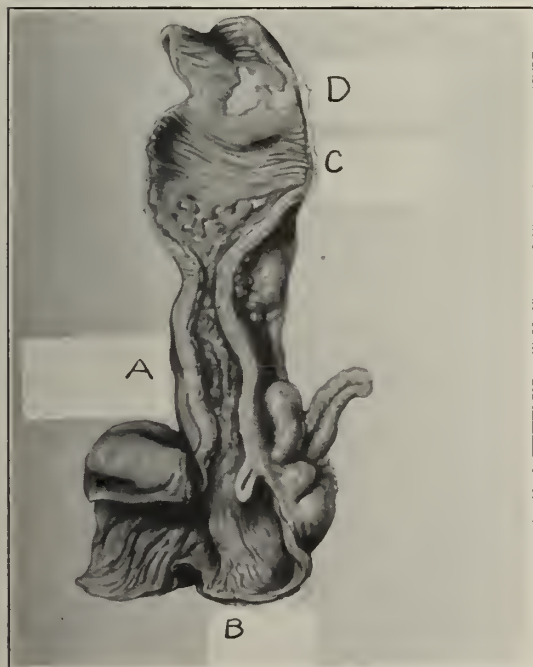


Fig. 3. Typical specimen of regional enteritis. The walls of the terminal 8 inches of the ileum are thickened and fibrosed. The mesentery is indurated and has hyperplastic glands. A. Linear ulcerations on mesenteric border of the bowel surrounded by the cobblestone-like mucosa. B. The mucosa of the cecum is not involved. C. Area of normal intestine which separates the skip areas. There are small ulcerations of the main lesion just below its proximal edge. D. The skip areas of granulomatous lesions of regional enteritis. The mucosa has erosions and the submucosa is edematous. (Burrill B. Crohn.)

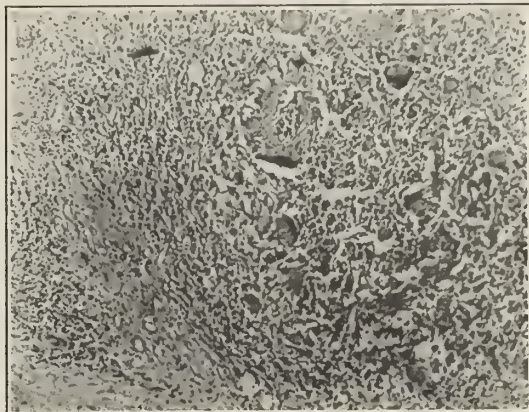


Fig. 4. Microphotograph of sections through the submucosa of regional enteritis. Multinucleated foreign body giant cells are scattered about. There is intercellular edema and a nonspecific infiltration of monocytes, lymphocytes and scattered eosinophiles. (Burrill B. Crohn.)

older person malignancy of the sigmoid should be suspected.

Abdominal or mesenteric abscess due to a slow perforation of the bowel by a foreign body, lymphoblastoma, actinomycosis and amebic involvement of the cecum are rare and have clinical methods of diagnosis. A granuloma may develop in a viable segment of intestine in which the circulation had been compromised in a strangulated hernia.

THERAPY

The treatment is surgical because the lesion progresses to stenosis. Cure is obtained by an adequate resection of the diseased bowel. The preoperative treatment is the same as for other intestinal operations. The anemia is combated with repeated transfusions. The bowel is cleansed for a week with mild laxatives and repeated enemas. A low residue, high chloride, high carbohydrate diet is given.

The technic may be complicated by an abdominal abscess, internal or external fecal fistula. The preliminary drainage of an abscess should be avoided when possible for this may lead to a fistula. However, a large abscess may demand drainage first with the ileocolostomy performed later in single or multiple stages. Severe hemorrhage may be encountered in the mobilization of the intestine and indurated omentum. A one stage resection of the ileum and cecum is the procedure of choice in the uncomplicated cases. The ileocecal valve must be removed for it is almost always involved. The small intestine is carefully examined so that the resection will be sufficiently high above the skip areas. The proximal ileum is anastomosed to the ascending or transverse colon by a side-to-side or end-to-side implantation. Dr. A. A.

Berg has obtained excellent results in the one stage resection with an isoperistaltic ileotransverse colostomy. In the divided operations of regional enteritis, the first stage consists of an exclusion of the diseased ileum and an ileocolostomy. It is not wise to do a simple side-to-side anastomosis of the proximal ileum to the colon to form a shunted loop around the lesion. This loop of bowel becomes atonic and the diarrhea and cramps are greatly increased. The treatment of fistulae is a delicate procedure. Care must be taken not to violate adherent intestinal segments for a latent infection may be activated or an internal fistula exposed. This may cause a fulminating peritonitis. The peritoneum should not be drained after intestinal resection. In an ileosigmoidal fistula, on removing the lesion in the ileum, the sigmoidal defect will commonly heal after simple closure. It usually is not necessary to resect the sigmoid. A persistent and intractable fecal fistula should always be investigated for ileitis. It is not amenable to simple closure; the underlying diseased segment of bowel must be removed. This is to be remembered when the fistula follows an appendectomy or the drainage of a supposed appendiceal abscess.

The treatment of the so-called acute form of regional enteritis is a moot point. When the terminal ileum is red and indurated on operation for an acute inflammation in the right iliac fossa, it is reasonable not to do a resection. These forms usually resolve spontaneously. It is well to examine the ileocecal angle in all appendectomy operations.

SUMMARY

Regional enteritis is a primary nonspecific granuloma which arises in the terminal ileum. The colon may have a similar pathologic process in some instances. The lesion is characterized by its progression to stenosis and by its frequency of fistula formation.

It is predominantly a disease of young adults although it occurs in later years.

Mild lower abdominal cramps and moderate diarrhea are the first and outstanding symptoms. A mass in the right iliac fossa and evidence of intestinal obstruction are the most common physical findings.

Roentgenologic examination is very important in the diagnosis.

Cure is obtained by ileocecal resection. It is imperative to remove all the diseased ileum. In isolated instances, the pathologic process may subside after many months of medical treatment.

All intractable fecal fistulae should be examined for an underlying ileitis.

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THE TECHNIC OF A RADICAL HEMORRHOIDECTOMY

A PROCEDURE WITH THE ELIMINATION OF THE ELEMENT OF PAIN

SAMUEL E. NEWMAN, M.D.

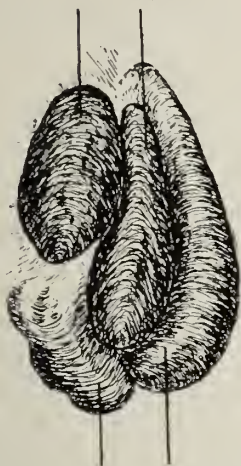
ST. LOUIS

In 1903 Dr. Joseph M. Mathews, one of the most outstanding proctologists of his day, wrote: "Excision of piles is the ideal operation but how to excise them best is not yet determined, at least not demonstrated to the satisfaction of painstaking surgeons." That statement is as true today as it was thirty-three years ago. There are many types and innumerable varieties of hemorrhoid operations to be seen in the operating rooms of our foremost hospitals. The ultimate result of the hemorrhoidectomy is usually excellent but something is definitely wrong with the technic for, as a rule, the experience is not a pleasant one for the patient. The news of much suffering travels fast with the result that many persons avoid getting the great relief which surgery has to offer them. I do not exaggerate when I state that the usual hemorrhoidectomy is a painful procedure. This is so well known to the general practitioner that he often sympathetically suggests palliative measures in place of a curative operation. The patient may come to the proctologist and say, "I am ready to go through with it but I know how painful it will be," and no statement of yours to the contrary will convince him when he knows.

ANATOMICAL CONSIDERATIONS

The anatomy of the anal canal is very important in this operation. I will not increase the length of my paper with anatomical details which can be obtained from standard works on the subject, but I cannot refrain from pointing out certain salient facts which guide the steps of the operative procedure. The mucosa of the rectum is thicker and more vascular than that of the colon and moving quite freely on the muscular coat makes a kind of independent tube. The thickness of the mucous membrane of the

INTERNAL HEMORRHOIDS



OEDEMATOUS ANAL MARGIN

Fig. 1. Pathology before operation.

anal canal is about 1 to 2 mm. or $1/16$ of an inch. The internal sphincter which consists of muchly augmented circular fibers is 3 or 4 mm. or about from $1/8$ to $1/6$ of an inch thick. In the lower portion of the anal canal the internal sphincter tapers off and is reinforced by the external sphincter which is a ribbon like muscle and encircles the bowel to a height of from 12 to 25 mm. or $1/2$ to 1 inch. The arteries coming from above form loops with convexities pointing downward. From these loops several branches arise and pass longitudinally downward, piercing the muscular coats to enter the submucosa where they anastomose freely. In the anal canal the arteries run longitudinally in folds of mucous membrane and reach to the anal orifice. The veins return the blood in a similar way, starting by dilatations below and making a plexus higher up under the mucous membrane.

PATHOLOGICAL CHANGES

Now let us consider the alterations from the normal anatomy which occur when hemorrhoids are present. The veins become distended and tortuous and connective tissue forms around the ballooned venous channels. Clotting is frequently found in the veins and the walls may be thickened or the channel obliterated. The arteries do not change their size or course to any appreciable extent and merely accommodate themselves to the different environment. If there is any change in the sphincter muscles it is confined, at least to a large extent, to cellular infiltration and fibrous tissue formation. A great variation from the normal is seen in the mucous membrane. It becomes thickened and

redundant and there is a marked tendency for it to slide down and to prolapse. Often the sphincters hold in their grasp protruded portions of the mucosa which are seen as pouting lips at the anal opening.

The operation which I have to offer is based on three fundamentals: First, that the blood supply of the anal canal runs longitudinally and is located in the submucosa; second, that the complete removal of the hemorrhoids does not necessitate an injury to the sphincter or levator muscle structures; third, that it is almost impossible to avoid traumatizing the deeper anatomical parts except by a careful open method excision which makes it possible to see plainly what tissues are being manipulated and in what structures the sutures are placed.

With the anatomy in mind, it is obvious that the blood supply is best controlled by ligatures placed above the hemorrhoid in the more normal mucous membrane. The submucosa and the vessels in the submucosa are superficial and it may be generally stated that a needle which passes deeper than $1/8$ of an inch in this location will penetrate the body of the internal sphincter. In the area of the external sphincter the landmarks are less definite and it is necessary to exercise special care to avoid injury to the muscle. I believe that much of the clamping and sewing done in the field of the external sphincter includes part of the muscle in its grasp. A needle thrust which is pushed through these tissues to a depth of more than $1/4$ inch often causes an injury to the nerves and muscle fibers of the external sphincter muscle.

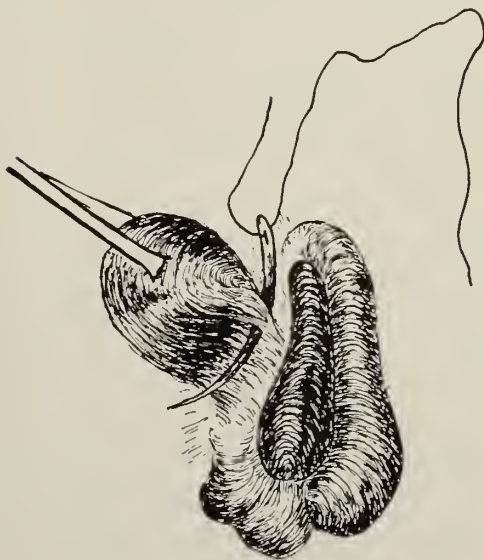


Fig. 2. The pile is drawn out and a superficial stitch is placed above the hemorrhoid in the mucosa; the needle does not penetrate more than one eighth of an inch into the depths of the tissue.

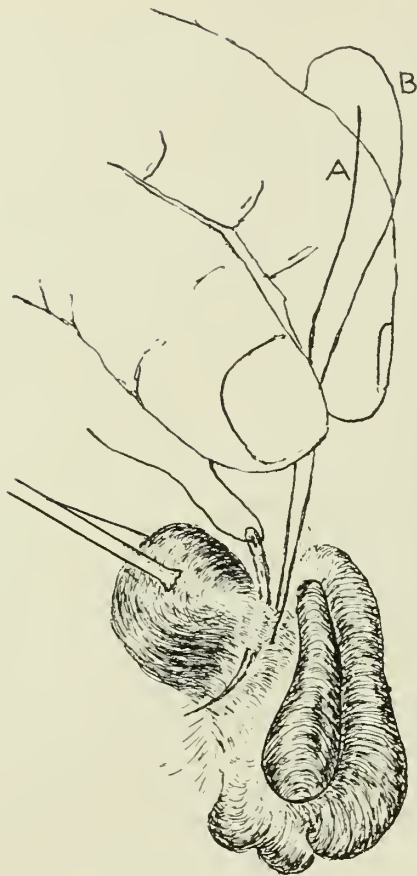


Fig. 3. By traction on the ends of the catgut of the first stitch (A and B) the mucosa is lifted from its bed and a second stitch is made to include the vessels of the submucosa. The blood supply to the hemorrhoid is secured in the first and second stitches of figures 2 and 3. The internal sphincter muscle has been left unmolested and this is of the greatest importance.

PRELIMINARY OBSERVATIONS

Previous to operation it is advantageous to determine the extent of the hemorrhoidal condition, for if the location and the degree of the hemorrhoids is known, a considerable amount of time may sometimes be saved and there are no surprises. Careful inspection of the anus and a digital examination when combined with a proctoscopic search of the rectum may reveal a condition to which the hemorrhoids are secondary and the embarrassment of a wrong diagnosis can be avoided.

PREOPERATIVE CARE

As a rule no cathartic is given. If because of marked constipation a laxative drug is used to open the bowels, the effect is allowed to subside completely so that no liquid defecation will soil the field during or shortly after operation. If no feces are impacted in the rectum and the rectal pouch is practically empty, the bowel is washed out with a tap water enema the night

before the operation. The buttocks are shaved in preparation for the adhesive plaster straps, the use of which will be described under operative procedures. The anal region is not shaved. The entire dermal area of the operation is thoroughly washed with soap and water the night before, and again one hour before the operation. Since the type of anesthesia is the surgeon's choice, the preparation for the anesthesia should be a part of his routine.

OPERATIVE TECHNIC

Moderate dilatation is used only in cases of marked sphincter spasm or difficulty of approach to the hemorrhoids. As a rule no dilatation of the anal opening is required. The piles are drawn down with suitable forceps and all excisions are determined upon before any ligatures are placed. The classical right anterior, right posterior, left posterior and possibly left anterior positions of the hemorrhoidal masses are well worth bearing in mind for most cases fall in these divisions. Each pile is handled individually and the operator goes from one to the other in quick succession. The work in the anal canal is finished before touching the surgery of the external hemorrhoids. The illustrations which accompany this article are semidiagrammatic and they attempt to show the steps necessary in the removal of a right anterior internal hemorrhoid. The same procedure is repeated until all the internal hemorrhoids have been excised.

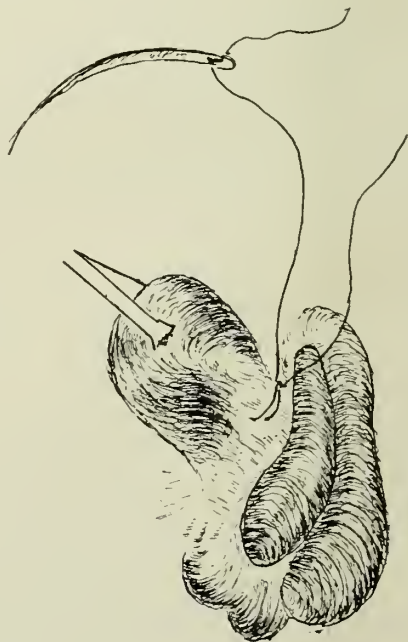


Fig. 4. The ends of the catgut stitches are tied and left long for further continuous sewing.

ANAL SURGERY

The removal of redundant skin in performing a hemorrhoid operation is of prime importance. A failure to do the necessary surgery of the anal margin frequently means postoperative edema with discrete swellings of inflammatory tissue or a collar involving the entire anal opening. Only a small percentage of chronic internal hemorrhoids are without some skin changes which require surgery. In operating on the external hemorrhoids the task of correcting the internal hemorrhoids is brought to a finish before beginning the work on the outside. Whether the excised internal pile is left attached to the corresponding external pile or whether it is completely severed before beginning the external surgery is not of much importance. I prefer removing very large masses of internal-external hemorrhoids in one continuous piece but moderately large and small formations are excised separately.

The anus is in repose and plans are made to remove the skin tissue in three, four or five elliptical sections. The scissors is ideal for this procedure and it is wise when in doubt to cut away less rather than more, for additional removals of skin or subcutaneous material can be made if the amount taken is insufficient. Bleeding is seldom of any consequence and a forceps temporarily applied to the bleeding point is effective in checking the blood. The skin margins will fall in line without the aid of a single

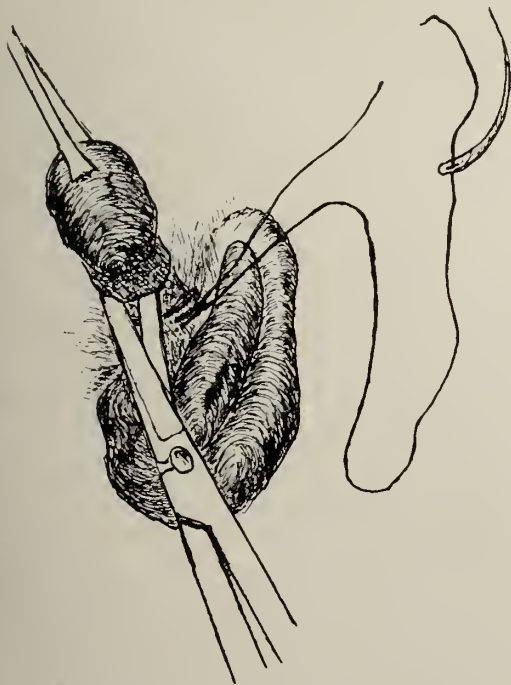


Fig. 5. This picture illustrates the simple removal of the hemorrhoidal fold of tissue by using a scissors.

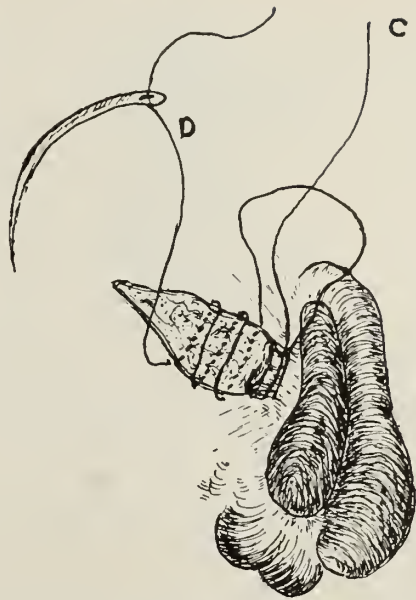


Fig. 6. The raw surface left by the excision is closed by one, two or three stitches which are carefully placed in the base from which the pile has been removed. By this additional sewing the small vessels of the hemorrhoidal plexus which have escaped the control stitch of figure 4 are satisfactorily secured. Again care is taken not to include any fibers of the internal or external sphincter muscles.

suture when the plastic surgery has been skillfully done. Inserting the finger into the rectum and withdrawing it slowly will reveal skin tabs which have been missed and these should be snipped off before the work is concluded. If small pieces of skin are left to decorate the anus they soon swell to many times their original size and often become permanent. Cases with extensive external skin drapery should be treated in like manner and although the amount of removal is extensive, the result is satisfactory if ribbons of skin are left between the excised areas. If all the buttresses of skin are removed from the anal margin, no postoperative edema will harass the patient.

POSTOPERATIVE DEFORMITY OF THE
RECTAL TUBE

The anal canal is a tube and if the hemorrhoids are removed without due consideration of the fact that the tract must remain unobstructed with a lumen which can be made to function normally, trouble is apt to be encountered. Membranous bands, semilunar folds, circular strictures and partial obliteration of the anal canal are some of the unhappy end results which every proctologist has at some time or other had to correct. The anal opening and the upper end of the anal canal are the sites at which this complication may be found. If the removal of tissue is too extensive, large patches of granulating tissue may finally heal with constriction or distortion of the canal. Mass ligations and



Fig. 7. The C and D ends are tied and there is a tendency to pull the tissues up rather than down. A small knob of tissue is the result of the tie and when it is released it goes back into the rectum and can be readily felt one and a half to two inches high in the anal canal.

unwise sewing may pull the tissues together to such a degree that vicious healing results. The ideal operation should be a carefully planned plastic procedure and the tissues should fall together of their own accord. Often what seems to be a large uncovered surface will be completely obliterated by the contraction of the muscles. It is well to insert the finger into the rectum after the operation is concluded so that bridging can be detected and corrected.

POSTOPERATIVE PAIN

Postoperative rectal discomfort varies in degree and can be burning sensation or a continuous hurt; sometimes it is a severe or even unbearable pain, and again perhaps a twitching or piercing rectal spasm. Obviously a burning or hurting is compatible with any surgical operation but even this discomfort should not last for more than a few hours and certainly not for days. To convince the "doubting Thomases" that my statements are not exaggerated I have had compiled a consecutive series of radical hemorrhoidectomies performed within the last few years, and in only 2 per cent of these cases was any narcotic used and all that was necessary was a single hypodermic injection of morphine sulphate gr. 1/6.

PROCEDURES TO BE AVOIDED

Traumatization of the tissues will produce discomfort. Of all the forms of trauma, digital or instrumental dilatation is most abused. In cases of chronic hemorrhoids forceful stretching is seldom necessary and the occasional very tight sphincter can be relaxed by gentle means. The gross exaggeration of the picture which often follows forceful relaxation of the sphincter is a disturbance which leads to unnecessary confusion. As for the traditional claim that dilatation prevents pain, I believe the negative of this statement is more often true than the positive.

The use of a stringed tampon or gauze strip as a means of everting the mucosa and delivering the piles disturbs the anatomy and is apt to lead to the removal of an excessive amount of tissue.

The pile is pulled down by means of a small forceps and the forceps can be used as a convenient means of manipulating the pile during the process of excision. However, if strong pull is exerted while clamping or sewing, it is almost impossible to avoid including the deeper portions of the rectal wall in addition to the hemorrhoidal elements.

Blind sewing either with or without the use of a clamp is a trouble maker. No single act in the technic of a radical hemorrhoidectomy is more productive of severe postoperative pain than the mass ligature. The purpose of the ligature should not be to remove the pile by strangulation and necrosis; pain, edema and infection follow in the wake of this method. Deep sewing is not unlikely to be the direct cause of an abscess and there is sometimes evidence of guilt which connects a fistula with a hemorrhoidectomy. The ideal sewing in a hemorrhoidectomy should control the blood supply and obliterate the venous channels with a minimum amount of small sized catgut.

Very seldom should any sewing or clamping be done in the region of the anus. This is a sensitive area richly supplied by both sensory and motor nerves, and pinching or crushing the tissues produces a riot of postoperative disturbances.

Tubes, rubber tissue, vaseline gauze or any foreign body placed in the rectum after the completion of the operation causes rectal spasm and urinary disturbances. They delay healing by preventing the immediate union of the cut edges and serve no good purpose.

DRESSINGS

No hemorrhoid operation is completed until all active oozing of blood has been checked. Firm pressure against the anus soon gives the assurance of complete hemostasis and the dressings may be applied. With the patient on the left side a liberal amount of vaseline gauze is placed against the anal margins to prevent adherence of the gauze to the wound edges. Additional gauze is added to form a pyramidal dressing in the intergluteal valley. The dressings should freely cover the operative field and be smooth with no lumpy gauze to produce discomfort. Before applying the adhesive plaster dressing, the legs are straightened and the body kept horizontal. This position is used because if the adhesive is applied when the thighs are flexed and the gluteals are thickened, the dressings are loose when the legs are straightened.

Four inch adhesive plaster in twelve to fifteen inch lengths are ready for use. Four or five such strips are necessary. One end of the first piece of adhesive is applied on the left buttock and while the cheeks are pressed firmly together the other end is made to adhere to the right buttock. The strap crosses the gluteal crease at a right angle. This procedure is repeated with additional strips of adhesive until the buttocks have been pulled tightly toward one another. The straps overlap by about one third of their width and the gauze dressings are completely encased. By this means lateral pressure with an upward push of no small amount is obtained. A T binder is adjusted and fastened in place so that anterior-posterior pressure is also secured. Such a dressing will add much to the hemostatic security besides acting as a splint to the field of operation. This elaborate dressing is used for only twenty-four hours; the T binder is removed six or eight hours after the operation and the adhesive plaster with all the dressings are removed the following day. A simple vaseline pad is applied to the operative field. There should be no bleeding and no swelling; just a normal restoration of the parts.

POSTOPERATIVE CARE

The postoperative routine is that of the usual surgical case. Conditions are met as they arise. Morphine is seldom necessary. No patient is allowed to suffer and efforts are made to give the many little attentions which produce confidence. No opiate is used to tie up the bowels and seldom will the bowels move until measures are instituted to aid evacuations. In some instances, about one in twenty, the bowels move on the second day but this does no harm and a soft evacuation occurring prematurely produces slight discomfort. Liquids are given on the first day; at the end of twenty-four hours soft solids and gradually a regular diet is resumed. I have noticed no advantage to keeping the patient on liquids so that they feel half starved before solid food is allowed. At the end of seventy-two hours preparations are made to open the bowels. I am definitely opposed to the use of cathartics for they produce a sudden violent expulsion of feces and subsequently one or more small painful discharges. Sphincter spasm and sharp pain are not unusual when laxative drugs are used to produce the initial bowel action. The method which I prefer is a system of small retention enemas. About six ounces of tepid tap water are injected through a catheter inserted into the rectum. This procedure is repeated every two hours and after three or four such treatments the amount of fluid used is increased so as to produce an evacuation. The result is in most instances painless and satisfac-

tory. Even should the result be scant, no further attempt is made until the following day when the effort is repeated and the evacuation rarely fails to be sufficient. The bed-pan and the recumbent position is always insisted upon for the first few movements, and usually the toilet seat may be utilized for the third evacuation. The further care of the bowels depends upon the habits of the patient. The average case requires only a few instructions but the constipated individual should be given the benefit of correctives so as to regulate his bowel movements. The problem of defecation is simpler after the hemorrhoids have been removed and the element of fear has been replaced by assurance.

603 Metropolitan Building.

PROSTATIC HYPERTROPHY AS A DEFINITE ENDOCRINE PROBLEM

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Prostatic hypertrophy is a common condition that begins in early adult life and ranging to any age. The prostate in these cases becomes enlarged sufficiently to give symptoms from which these patients seek relief. It has been generally agreed that there is a "male climacteric," and it is not only in these cases, but also prostatic hypertrophy due to senility and latency of specific and nonspecific infections, also benign prostatic hypertrophy that are of interest to the endocrinologist.

The prostate, which is an organ giving an external and an internal secretion, is the most important accessory sex gland in the male. The regression of the cyclic changes of the prostatic cells is the control episode of the male climacteric. This is the natural form of producing physiological prostatic hypertrophy. In compensatory hypertrophy there is a definite relation between testes and prostate. Clinical experience shows that the prostate often hypertrophies after removal of the testes. In such a case a temporary stimulating reaction takes place in the prostate to compensate for the lack of gonadal secretion. Prostatic hypertrophy usually follows the functional retirement of the testes as there is a definite relationship between the endocrine activities of both these glands; when the testes become functionally inactive the prostate becomes enlarged. When the prostate becomes enlarged from specific or nonspecific infections and fibrous infiltration, the prostate carries the main burden of throwing off the infection which causes inflammatory and hyperplastic changes and adjusts itself to fibrous

changes, thereby interfering with the normal endocrine activity of the gonadal internal secretion. Physiologically, it is identical with thyroid enlargement during a period of ovarian insufficiency or pituitary hypertrophy as an attempt to meet the demand of supply.

The prostate secretes a hormone which joins with the absorption of infections and toxins. This causes some important changes in the prostate such as prostatic dysfunction and various forms of prostatic hypertrophies.

Just as infected fallopian tubes and uterus with surrounding pelvic infiltration produce pressure and neurasthenic symptoms, likewise, inflamed seminal vesicles and periprostatic infiltration produce disturbances that may develop into general nervous and distressing manifestations.

In understanding the various forms of prostatic hypertrophies and their underlying glandular causes it is well to remember that the prostate, seminal vesicles, Cowper's glands and testes are sufficiently important in their own cycle, but not to forget that the hypophysis, with its gonadotropic hormones, is the vital factor that must be considered to complete this delicate chain. Hypersecretion of the anterior lobe of the pituitary gland is also a cause of hypertrophy of the prostate. It is this interrelationship between these stated endocrine glands that bears comment. It is generally recognized that a hormone does not directly influence the endocrine gland from which it originates. The active principles secreted by a given gland may markedly influence certain other endocrine glands. Indirectly a gland might be affected by its own hormone. The testicular hormone does not affect the testes directly but exerts its effect upon the secondary sex organs. It is known that the testicular hormone exerts a restraining effect on the anterior pituitary and gonadotropic principle, thus indirectly acting as a temporary check on testicular activity.

The pituitary gonadotropic hormone also exerts a selective influence on the male gonads by its stimulating action and the male hormone in turn inhibits pituitary function. The anterior pituitary gonad stimulating hormone is a general sex hormone and its action upon the male, by descent of the testes and general growth of the interstitial Leydig cells, is concerned in production of the male hormone by stimulation of the germinal epithelium with onset of gametokinetic activity. This gives rise to a normal male sexual cycle.

When prostatic hypertrophy becomes a definite entity, the question arises primarily of how to overcome this condition which is encroaching on the male productive glands. When prostatic hypertrophy persists the next step is im-

potence or sterility, or both. From an endocrinological aspect the realization of overcoming such manifestations appears that of etiology.

Considering the increasing complexity and varying ramifications of modern life there is a tendency for an increase of prostatic hypertrophy with the dread of impotence and sterility. It is imperative that treatment in these cases be instituted as early as possible to promote earlier well-being and to add confidence to the mature male from fear of later prostatic involvements.

I present the results of treatment in my group of sixty-nine cases. The average age of the patients was 44 years; the youngest of the group was 35 the oldest 62 years of age. It is evident that the etiology be ascertained, if possible, for focal infection and whether or not there has been any specific or nonspecific infection of the genito-urinary tract. The complaint of the average patient is loss of general physical activity, fatigue, insomnia, frequent and difficult micturition, nocturia and perineal discomfort.

The treatment must focus primarily on the prostate, with its interrelationship of stimulating and inhibitory action of the endocrine group, and consideration of the intraprostatic action to its component parts. It has been my method to give a water soluble hormone intramuscularly twice to three times weekly to stimulate hypophyseal growth action until a proper balance is reached. Then the sex hormone androstine, the liposoluble active principle, a physiologically standardized total testicular extract, is given for the stimulating action of the seminal vesicles, Cowper's glands and the testes. The inhibitory action of the prostate then becomes apparent and relief of the patient is noted in a feeling of well-being, a decrease of nocturia and greater ease in voiding, and the complete cessation of perineal pain.

The results of this treatment up to the present time has been gratifying enough to warrant the writing of this article. It has been noted that to produce the stage of well-being the injections must be given once weekly over a period of time.

SUMMARY

Prostatic hypertrophy is a relatively common condition of the male. It is the organ giving an external and an internal secretion and is the most important accessory sex gland in the male.

Clinical experience shows that the prostate carries the main burden of absorption of infection and toxins.

Various forms of prostatic hypertrophies and their underlying causes can be controlled by properly instituted gland preparations.

CONCLUSIONS

1. Prostatic hypertrophy is a common condition in the male.

2. Various forms of hypertrophies of prostate and their underlying causes can be controlled.

3. The treatment with a water soluble hormone to control the hypophysis followed by androstine, a liposoluble active extract, has given gratifying results.

818 Professional Bldg.

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EPIDEMIC PLEURODYNIA IN
CHARITON COUNTY

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AND

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During the period from August 20 to October 13, 1936, we encountered in Chariton County some hundred cases of epidemic pleurodynia or epidemic myositis. The disease appeared rather suddenly in various parts of our community, remained at its height over a period of about three weeks and subsided. Those affected ranged in ages from 2 to 55 years but the majority of cases were between the ages of 6 and 15, both sexes being affected equally.

Pain was the only constant symptom encountered during this epidemic, in a large majority of cases it being sudden in onset and lancinating in character. Its most frequent location was in the chest, the left side being affected more often than the right. Other locations were in the region of the ensiform cartilage, the costal margin of the ribs, the entire abdominal region, the back and the posterior neck muscles. Practically all patients complained of pain on deep respiration. The characteristic picture was that of a patient lying or sitting very quietly in bed, his breathing rapid but shallow with his eyes full of tears because of the extreme pain. Even children who cry most readily when in pain seemed to realize that this only aggravated their

symptoms and preferred to remain quiet. There is no doubt that the name "The Devil's Grip" given this disease by the laity, is most appropriate. An incident which occurred some years ago might be repeated here as good advice to these patients. A local doctor was called to see a woman who complained that she could not take a long breath. His reply was, "Just take two short ones instead."

All cases had temperature which ranged from 99 to 104, although in a few instances subnormal temperature was present at the time of onset, followed within a few hours by fever. The pulse rate was increased proportionately to the rise in temperature. Headache was a frequent complaint and often of a severe type. A few patients complained of having chilled. Sweating was not marked in any case. The majority of patients were slightly constipated but diarrhea was occasionally encountered.

The average duration of pain was from one half hour to three or four hours depending to a large extent on the medication. The attacks occurred as often as two to three times within a period of twenty-four hours while a few had only one attack which did not recur. From our experience we can say that a recurrence every twenty-four to forty-eight hours covering a period of from four to ten days was the most constant picture. During the latter part of this epidemic the cases encountered were much milder in character than those seen at an earlier time. Physical findings were entirely negative except for some muscular rigidity.

In reviewing the literature we find pleurodynia to have been reported from Iceland in 1856 to 1863, Norway in 1872 to 1874 and also in Sweden, England, Denmark, Finland, Portugal and Germany. Dabney was the first to report this disease in America in 1888 at which time he claimed to be unaware of the European reports. Since that time the American Medical Association has had reports of a similar disease in New York, Massachusetts, Virginia, West Virginia, North Carolina, New Jersey, Pennsylvania, Ohio, Tennessee, Illinois, Colorado and California, the last two being the only states west of the Mississippi River. Most reports state that the disease has been confined to urban communities, seashores and mountain resorts. The epidemics have always died out quickly and all reports have stated that the disease occurred during the months of July and August.

The etiology of the disease is unknown. While some have thought it to be spread by contact others believe that possibly the mosquito or some similar insect is a carrier. Green states that the disease is not spread by means of water, milk or food. Dabney saw four children in one family with epidemic pleurodynia and all of

these children had had dengue, a mosquito-borne disease, during the preceding year. Whole blood has been injected from a patient ill of the disease for four days into a volunteer but the results were negative. Small described a plasmodium which he found in the red cells of two patients who had the disease in Philadelphia in 1924, but these findings have not been confirmed to date. Complications have been reported as rare, an occasional orchitis being the most frequent. Petren reported twenty-five such complications in a series of 500 cases. Stained specimens of blood taken by us during the various stages of the disease failed to reveal any positive findings. We likewise encountered no complications. The leukocyte count varied from 3400 to 10,000.

This disease when prevalent should be easily recognized, but if a diagnosis is not made confusion with other diseases may readily occur. The abdominal rigidity which is seen in numerous instances has led to unnecessary surgical interference. The diagnosis of peptic ulcer, gall-bladder disease, renal colic and appendicitis has been erroneously made. Two such cases were operated on in the Massachusetts General Hospital but all abdominal organs were reported normal. In our experience a number of cases complained of symptoms which might readily be confused with a coronary involvement. A few cases were brought to our attention in which this error had occurred. Other diseases with which it might be confused are influenza, diaphragmatic pleurisy, herpes zoster and pneumonia.

The prognosis of this disease is universally good. No fatalities have ever been recorded.

The treatment is entirely symptomatic. The limitation of motion of the chest by strapping with adhesive or by means of a chest binder is frequently helpful. Morphine is sometimes needed for relief but in the majority of cases codeine suffices. Salicylates are sufficient to relieve the pain if it is not severe. Quinine sulphate was used routinely in the early part of this epidemic on the theory that the disease might be caused by a plasmodium but our results with this were disappointing. Other treatment was that used for any febrile disease. Recovery from an attack was followed by a rapid return to normal.

Harold N. Wright, Minneapolis (Journal A. M. A., March 20, 1937), tested a group of commonly used flavoring agents on approximately 600 individuals to determine their relative efficiency in disguising various types of disagreeable tastes. Considered purely as pleasant tasting vehicles the syrups of prepared cacao and raspberry are the flavors of choice of the largest percentage of individuals. Second choices are the syrups of orange, cherry, sarsaparilla and citric acid.

IMPETIGO CONTAGIOSA

HOWARD A. DUNAWAY, M.D.

SIKESTON, MO.

Impetigo contagiosa is an acute, inflammatory, infectious and auto-inoculable disease of the skin characterized by macules, vesicles, pustules and superficial crusts.

It is met with at all ages and in all social grades, but occurs principally among uncleanly children. It is not a contagious disorder, as the name implies, but it is highly infectious. Kerley¹ substantiates this statement by saying: "I have known one school child to infect an entire class of twenty." The infection spreads from one individual to another by auto-inoculation through the medium of towels, fingers, clothing, etc.

In 1900 it was shown by Matzenauer, and has been confirmed by numerous subsequent observers, more recently by Belding and Falls, that the responsible organism in impetigo contagiosa is a specific strain of staphylococcus aureus of variable virulence.

Any break of the epidermis is liable to such a coccal invasion and the virulence of the organism and the degree of resistance of the host will determine whether or not the disease will appear. It is thus easily understood how a very frequent predecessor and accompaniment of impetigo contagiosa may be any skin lesion that itches. The associated itching of mosquito bites or pediculosis capitis excites scratching with consequent breaches in the epidermis through which cocci enter.

The lesions of impetigo contagiosa occur for the most part on the exposed surfaces of the body; face, hands and forearms. At first the lesion consists of small erythematous macules which rapidly develop into flat vesicles that rapidly become pustules which soon form a dry crust of variable size and thickness. One area or a dozen or more areas may be involved. Several small lesions may coalesce forming one large lesion one to several inches in diameter. These crusts usually are of a yellowish-brown color and rest upon an inflamed base which bleeds slightly when the crusts are removed.

There are no constitutional symptoms except a slight rise in temperature in extreme cases; rarely is there itching. However, we often do see extreme cases in the infant where the vesicles coalesce rapidly and large areas of exfoliation appear. This is a grave form of the disease. When bullae characterize the infection it is usually described as pemphigus neonatorum. However, Finnerud² disagrees with this terminology by saying: "In infants, this eruption is not uncommonly a bullous one and is, therefore,

properly spoken of as bullous impetigo and improperly referred to as 'pemphigus neonatorum.' The latter name is to be condemned in that the disorder is in no way to be considered a form of pemphigus. Bullous impetigo not uncommonly terminates fatally.

Defective domestic hygiene and neglect are factors that affect its development and upon this control the prophylaxis of the disease very largely depends. It would be a wise procedure to isolate school children, keeping them within the confines of their homes, until they are free from all symptoms.

In the medicinal treatment of impetigo the writer is struck by the variety of drugs and their compounds used. Metaphen, 1 to 500 incorporated in a flexible collodion applied to a decrusted area, several layers thick, resulted in many cures. Speaking of this method, Hollander³ says: "In twenty-four hours the easily removable layers of the metaphen-collodion mixture are removed with tissue forceps. The adherent part is left on and the mixture is re-applied in several layers. This procedure is repeated on the third day. On the fourth day all of the metaphen-collodion preparation, which by that time has curled up at the edges, is removed and with it the underlying incrustation. If the underlying skin is dry, light anointing with 2 per cent ammoniated mercury is applied. If, however, the surface is still moist the metaphen-collodion mixture is applied for another period of three days." In two hundred and thirty-four cases reported by Hollander, the average duration of treatment was eight days with 15 per cent failure. The advantages of such a procedure are the ease of application and the confining of the infection by an impervious dressing which checks auto-inoculation.

Physiotherapy has tried its hand in the treatment of impetigo contagiosa. Fair results are reported by Ellison,⁴ who conducted this work, using general exposure of the whole body at a three foot range, with ultra-violet rays. Radiology has been used by Taft⁵ with many cures of these pyogenic infections. However, both ultra-violet ray and roentgen ray may be used on only a few patients as the cost of treatment is prohibitive.

Impetigo contagiosa neonatorum is best treated by opening the individual blebs with a sterile needle and the contained pus removed by swabs dipped in 20 per cent alcohol. If the lesions are not numerous, or do not cover too large an area, a 3 per cent ammoniated mercury ointment may be applied and covered with sterile gauze. It is wise to bear in mind that mercury poisoning is a possibility. If the lesions cover a large area, good results are reported by Olmsted⁶ when an alcoholic solution of crystal

violet and brilliant green (Berwick's dye) was used after the blebs had been opened and cleaned.

In treating older children it is well to avoid all measures which may increase such inflammation as may already be present. The author has found that the most satisfactory procedure is to soften the crusts by application of gauze saturated with sterilized olive oil, the gauze being bound to the parts. Usually in twenty-four hours the crusts may be easily removed. Afterward, an ointment of 10 per cent boric acid in rose water, a 5 per cent ammoniated mercury ointment, or one composed of 10 per cent ichthyol in vaselin, should be spread on sterile gauze and bound to the suppurating surface. The dressings should be changed at least night and morning. Recovery is usually complete in from two to four days. When the crusts are on the lip or other portions of the face where the dressings described cannot readily be applied, the lesions should be kept moist either with the ichthyol ointment or boric acid ointment. If the gauze is not used, fresh ointment should be applied at least every three hours, both before and after the crusts are removed. It has been the author's experience in using the above treatment that the dressings should be held in place whenever possible by a bandage and not adhesive tape. In over 80 per cent of the cases where adhesive tape was used to fix the dressings in place the impetiginous infection would be found spreading beneath the tape where it had been fastened to the skin.

In bullous cases the lesions should be punctured with a sterile needle and a dressing of 10 per cent boric acid ointment applied. While such a procedure did not effect a cure as soon as did the application of tincture of gentian violet, it made the skin more supple, avoiding fissures and pain, and had the added advantage of not staining the area such a vivid color, such staining being objectionable to some patients.

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Since the usual type of treatment has been unsatisfactory in many cases of superficial ulcer which often develops into a deep one involving the subcutaneous tissues and even resulting in a periostitis of the underlying bone, Theodore Kaplan, New York (Journal A. M. A., March 20, 1937), suggests the use of allanto-

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APRIL, 1937

EDITORIALS

THE CAPE GIRARDEAU SESSION

The eightieth Annual Session of the Missouri State Medical Association will convene in Cape Girardeau on May 10, 11 and 12. Plans for the meeting are progressing rapidly. The Local Committee on Arrangements and the subcommittees have the work well in hand and have accomplished much in promise of a successful session.

The session will again be limited to three days, Monday, Tuesday and Wednesday. The House of Delegates will convene Monday morning and again after a short General Meeting on Wednesday afternoon. The Council will hold its first meeting as a luncheon meeting Monday noon following the session of the House of Delegates and will reconvene Wednesday afternoon after the adjournment of the House.

All General Meetings and sessions of the House will be held in the Southeast Missouri State Teachers' College. Commercial and scientific exhibits will be located in the college building and registration will be taken care of there.

The Committee on Maternal Welfare will sponsor a dinner meeting on Monday evening similar to the one held at the Columbia Session. All members are invited to this meeting. Case histories of fatal obstetric cases will be presented and Dr. Norman F. Miller, Ann Arbor, Michigan, Professor of Obstetrics and Gynecology, University of Michigan Medical School, will discuss these cases as well as other problems in obstetrics.

Members specializing in eye, ear, nose and throat work will convene at a luncheon meeting Tuesday noon and problems peculiar to that field of medicine will be discussed.

Secretaries of component societies will be guests of the Association at a dinner on Tuesday evening.

Guest speakers include Dr. Norman F. Miller, Ann Arbor, who will address the General Meeting in addition to his discussion at the Maternal Welfare Dinner; Dr. A. E. Hertzler, Halstead, Kansas; Dr. Herman E. Pearce, Jr., Rochester, New York, and Dr. W. W. Parker, Cape Girardeau, President, Southeast Missouri State Teachers' College. The complete program appears on page 139.

A public meeting will be held at the State Teachers' College on Tuesday evening and Dr. E. Lee Miller, Kansas City, will speak on "Appendicitis" and Dr. Ellis Fischel, St. Louis, will discuss "Cancer." Several addresses on "Appendicitis" will be presented before high school students in Cape Girardeau during the session.

Dr. A. E. Hertzler, Halstead, Kansas, will be a guest speaker at a luncheon meeting of the Woman's Auxiliary Tuesday noon. Dr. Val B. Satterfield, St. Louis, will speak at a bring-your-husband banquet of the Woman's Auxiliary on Wednesday evening.

The Cape Girardeau County Medical Society will be host at an entertainment at the Cape Girardeau Country Club on Tuesday evening following the public meeting.

Reservation for hotel accommodations may be made by sending the reservation blank on page 28 of the advertising section to Dr. H. L. Cunningham, Cape Girardeau, chairman of the Committee on Hotels.

THE SIGNIFICANCE OF RADIAL ARTERY PALPATION

Palpation of the radial artery is one of the methods commonly employed to evaluate physical constitution. By proximal and distal compression of this vessel the apparent thickness of the wall may be judged. The impression so formed may be translated into an evaluation of the status of the entire arterial tree. Thus it may improperly be assumed that relatively little, or relatively much, sclerotic change exists throughout the organism.

On the basis of such specious reasoning the Life Insurance Institute has reported that between 0.5 per cent¹ and 27 per cent of the population exhibits varying degrees of arteriosclerosis. Yet Sydenstricker points out that there is a very considerable disparity between the findings of physicians attached to the head office of the Institute and those belonging to the so-called field force. For example, in the age group 30 to 35 the head office examiners, doubtless the better trained, considered over 14 per

1. Sydenstricker, E.: Arteriosclerosis (E. V. Cowdry, Editor), New York, Macmillan, 1933.

cent of the policy holders to have a slight degree of arterial thickening as determined by radial artery palpation; the field force, on the other hand, found only a bare 5 per cent of the policy holders so afflicted. Neither figure agrees with the results of Ophuls² who found arteriosclerosis in 9 per cent of bodies autopsied in the age group 20 to 30. The discrepancy between the findings of the head office examiners (14 per cent) during life and the figure of Ophuls (9 per cent) found after death is further emphasized by Sydenstricker's observation of slight degrees of arteriosclerosis in 19 per cent of the policy holders in the age group 35 to 40 examined by the head office force, an incidence twice that observed by Ophuls at autopsy.

Such statistical inconsistencies illustrate the importance of reconsidering the entire subject of arterial thickening during life, both as to incidence and more particularly as to physiologic significance. In the first place, it must not be forgotten that there are at least three types of arteries in the animal mechanism, each with its own anatomical structure and physiologic function. The elastic tubular structures without muscular fibers (for example, the aorta) serve only to transport blood from the larger reservoirs into the second unit of the vascular system, composed of much smaller arteries, such as the radial, in which may be found muscular fibers; their presence implies the power of contraction and dilatation in response to stimuli transmitted through nervous impulse or arising in local inflammatory reactions. The muscular arteries in turn empty into the arterioles, thin endothelial tubes with irregularly scattered muscle fibers. These last in conjunction with the capillaries constitute the physiologic unit of the vascular system, for in the absence of obstruction they finally arbitrate the volume of blood passing through the functioning units of the body.

It is self-evident that the sclerotic process may attack one or more of the three and possibly four units composing the arterial portion of the vascular tree. It is altogether probable that simple thickening of the wall of the aorta and its immediate branches is without great clinical significance. In some individuals a similar alteration in the larger muscular arteries may be of little significance because normal life processes produce a gradual thickening of the intimal lining, a process quite unrelated to the pathologic atherosclerosis. Accompanying this thickening is a loss of elasticity which it might be thought would lessen the volume of blood capable of passing through the vessel in a unit of time. This, however, is not necessarily the case.

2. Ophuls, W.: *Ibid.*

There is a compensatory and concomitant dilatation and stretching of the vessel wall. While the loss of aortic elasticity may cause a more speedy transmission of the force of cardiac systole into the smaller vessels, there is no reason to believe that it directly affects the metabolic activities of the cells. Likewise, there is no reason to assume that pathologic aortic sclerosis is evidenced by increased palpability of the radial wall.

Autopsy experience in general demonstrates that extensive thickening may take place in certain arteries without corresponding thickening of the vessels throughout the body. In a few disease entities, notably essential hypertension and the hypertension associated with nephropathies, it is known that the primary anatomic change is in the arteriole.

Hence, it would seem reasonable to conclude that palpation of the wall of the radial artery is incapable of giving information as to the state of the vessels composing the vascular system. Only specious conclusions may be drawn from uncritical inference based upon this method of examination. Indeed, the excellent study of Sappington and Cook³ brings out just this point. These investigators made comparative microscopic studies of sections taken from the radial and other arteries in a series of eighty-six persons ranging in age from birth to 84 years. They point out the gradual increase in the thickness of the intima (relative to the thickness of the entire arterial wall) that normally takes place as a phenomenon of the life process. More important, by means of schematic drawings they illustrate the total absence of relationship between the degree of sclerosis in the radial artery as determined by microscopic section and that existing in the coronary and other arteries of the body.

It is worthy of note, too, that experimentally produced atherosclerosis is not generalized. In the herbivorous rabbit fed a diet to produce atheromatosis, imbibition of fat takes place in the elastic arteries or in those vessels composed largely of elastic tissue. That is, while sclerosis may be produced in the aorta, the internal carotids and even the coronary arteries of rabbits, it has not thus far been produced in the purely muscular vessels, such as those of the kidney and extremities. No amount of cholesterol feeding has thus far produced atherosclerosis in carnivorous dogs and cats.

The conclusion to be drawn from the investigations here recorded is that palpation of the wall of the radial artery yields no conclusive information relative to the degree of sclerotic

3. Sappington, S. W., and Cook, H. S.: Radial Artery Changes in Comparison With Those of the Coronary and Other Arteries, *Am. J. M. Sc.* **192**:822, 1936.

change that has taken place in the visceral vessels; therefore the more direct methods of retinoscopy, radiographic examination, studies of renal function, electrocardiographic tracings must be utilized for the determination of sclerosis in the vascular network of the viscera. Careful evaluation of vital statistics is important to a better understanding of morbidity; therefore discriminating consideration should be given before arteriosclerosis is recorded as the cause of death. Finally, arteriosclerosis can be considered important in the physiology of the body only insofar as it interferes with or threatens the normal metabolic activities of functioning body cells.

vern B. Clopton will speak on "Aims and Accomplishments of Medical Societies and Ours in Particular."

Dr. Major G. Seelig will present "Medical Progress in the Last One Hundred Years" at the meeting on Tuesday evening and Dr. Amand Ravold will speak on "Our Library." The Woman's Auxiliary to the Society will present a play, "Mushrooms Coming Up."

Dr. R. Emmet Kane will be toastmaster at the dinner on April 7. Rabbi Ferdinand M. Isserman, St. Louis, will give the invocation and the following addresses will be presented: "The Art of Medicine," Dr. Robert E. Schlueter; "The Great Physician," Rev. Martin O'Malley, St. Louis, and "The Doctor and the State," Charles M. Hay, St. Louis. Dancing will follow the dinner.

The St. Louis Medical Society was organized in 1837 when physicians of St. Louis obtained a charter from the Legislature under the name of the Medical Society of the State of Missouri. The name was changed in 1850 when the state organization was formed.

AMERICAN COLLEGE OF PHYSICIANS

The Twenty-first annual clinical session of the American College of Physicians will be held in St. Louis, April 19 to 23. An interesting and varied program will be offered both in the form of scientific papers to be delivered in the afternoons and evenings at the Jefferson Hotel and in the form of clinical and laboratory demonstrations in the hospitals of the city.

Many noted clinicians will be on the program. Among the numerous interesting papers to be presented will be a discussion by Dr. Richard E. Shope, Princeton, New Jersey, on "The Recent Knowledge Concerning Influenza." Dr. Shope is recipient this year of the John Phillips Memorial Medal offered annually by the American College of Physicians.

This meeting will be a rare opportunity for those interested in the recent advances of internal medicine to hear first hand many of the leaders in the profession.

ST. LOUIS CLINICS SPRING CONFERENCE, MAY 24 TO 29

The St. Louis Clinics will hold its Annual Spring Conference this year from May 24 to 29. Clinical demonstrations will be given daily beginning at 9 o'clock each morning and ending at 5 in the evening. On Tuesday night, May 25, the regular program of the St. Louis Medical Society will be under the direction of the St. Louis Clinics.

The program will be given entirely by St. Louis members of the medical profession and medical officers of the Army and Navy. It will be strictly clinical and will consist of a general review and a discussion of newer methods employed in the diagnosis and treatment of diseases in all branches of medicine. Demonstrations by medical officers of the Army and Navy will be given from 4 to 5 p. m. daily and on Monday, Wednesday and Friday nights. A dinner will be given on Thursday evening. All registrants are cordially invited to attend all these functions.

Further information may be obtained by addressing the Secretary, St. Louis Clinics, 3839 Lindell Blvd., St. Louis.

ST. LOUIS MEDICAL SOCIETY CELEBRATES ONE HUNDREDTH ANNIVERSARY

The St. Louis Medical Society will celebrate its hundredth anniversary on April 5, 6 and 7 with sessions at the St. Louis Medical Society Building on Monday and Tuesday evenings and a centennial dinner at the Jefferson Hotel on Wednesday evening. The building will be open each day from 10 a. m. until 5 p. m. where memorabilia will be on display.

On Monday evening Dr. Curtis H. Lohr, St. Louis, President of the Society, will open the session. A re-enactment of the first meeting of the Society, dramatized by Dr. Arthur Proetz from the original minutes in the *Archives* of the St. Louis Medical Society, will be presented. Dr. Archer O'Reilly will present "The History of the St. Louis Medical Society" and Dr. Mal-

THE SPRING MEDICO-MILITARY SYMPOSIUM

The Spring Medico-Military Symposium, held in Kansas City, March 15 and 16, attracted guests from nine surrounding states, Colorado,

Nebraska, Arkansas, South Dakota, Illinois, Iowa, Oklahoma, Kansas and Missouri, with a total registration of 374, the majority being from outside Kansas City.

The meeting was sponsored by the Kansas City Southwest Clinical Society and the Medical Departments of the Army and Navy of the Seventh Corps Area.

An enthusiastic response was accorded Dr. Paul Magnuson, Chicago, honored guest from Northwestern University Medical School, and Dr. C. S. Beck, Cleveland, Western Reserve Medical School, the guest of the Kansas City Academy of Medicine. The program for the two days, full of interesting and instructive papers, was eagerly received by all in attendance. Appreciation was expressed for the complimentary luncheons given both days by the management of the Kansas City General Hospital.

From the enthusiasm displayed at this meeting, it is definitely conclusive that Kansas City is rapidly becoming a medical center. The members of the Kansas City Southwest Clinical Society are succeeding in meeting a need of the day by presenting, twice a year, a wealth of medical information in a short period of time.

THIRD REFRESHER COURSES TO START IN APRIL

The third series of refresher lectures presented by the State Board of Health, with the Committee on Maternal Welfare of the State Medical Association cooperating, as a part of the work in maternal and child welfare under the Social Security Administration will begin about April 5. Work in obstetrics will be given in Councilor Districts 5, 6, 7 and 10, and lectures in pediatrics will be given in Councilor Districts 27, 28, 29 and 31.

Dr. Paul F. Fletcher, St. Louis, will present the work in obstetrics and Dr. O. F. Bradford, Columbia, the work in pediatrics. Dr. Fletcher has given the series of lectures in obstetrics in Councilor Districts 8, 9, 19, 21, 22, 23, 24, 25 and 26. The refresher course in pediatrics has been conducted by Dr. Bradford in Councilor Districts 1, 3, 4, 11, 12, 14, 15, 16, 17 and 18.

The present series will be conducted as were the previous ones. Lectures will be presented once a week at a central point in the district, the lecturers presenting the same lecture on consecutive evenings in the different districts. It is possible for a physician to attend a lecture which he has missed in his own district by going to another district on another evening of the same week. Each course will consist of eight lectures.

The refresher courses in both subjects will be

given throughout the state so that members in each district will have opportunity to attend these lectures at some time during the year.

BILLS IN LEGISLATURE

Definite opposition having developed against the passage of Senate Bill No. 3 providing for the establishment of a State General Hospital at or near Columbia for the care and treatment of the indigent sick, the Committee on Public Health of the Senate recommended a Committee Substitute for Senate Bill No. 3. The substitute bill provides for the establishment of a State Cancer Hospital in or near Columbia for the treatment of cancer and allied diseases and authorizes the Governor to appoint a Cancer Commission to establish the hospital, provide for administrator and staff and make rules governing the hospital and methods of admission of indigent cancer patients. This bill is on the calendar for perfection.

Senate Bill No. 76 provides for liens in favor of public and charity-supported private hospitals, clinics and other institutions for the care of the sick, who furnish care, treatment and maintenance to persons injured by the negligence or wrongful acts of others. The bill does not include liens for physicians. It has been referred to the Judiciary Committee.

Senate Bill No. 90 relates to the surgical and medical treatment and hospital care of crippled children whose deformities can probably be remedied by surgical or medical treatment and hospitalization in the hospitals of the State University of Missouri or any other hospital in the state which is approved by the Board of Curators of the University of Missouri. This bill clarifies our statutes with reference to the care of crippled children and thus permits Missouri to participate fully in the allocation of Federal funds. It is on the calendar for third reading and final passage by the Senate.

Senate Bill No. 135 amends the present medical practice act by requiring applicants for medical licensure to be citizens of the United States and be able to read and write the English language; also that applicants shall have completed a two year college or university course in the subjects of physics, chemistry and zoology. This bill has been referred to the Committee on Public Health.

House Bill No. 324 relates to the sterilization of certain inmates of state hospitals and the Colony for the Feeble-minded and Epileptic. This bill has been referred to the Committee on Public Health.

House Bill No. 265 raises the educational qualification of pharmacists. A substitute bill

has been reported out "Do pass" and is now on the calendar for perfection.

House Bill No. 276 amends the Missouri laws with reference to narcotic drugs so as to be in harmony with the Federal Narcotic Act. It is known as the Uniform Narcotic Drug Act. This bill has been referred to the House Committee on Public Health. A companion bill has been introduced in the Senate. It is known as Senate Bill No. 192.

House Bill No. 315 repeals section 9025 enacted in 1933 relating to deputy state commissioners of health for counties and reenacts the section previously repealed. The Committee on Public Health reported on March 1 "Do not pass."

THE HOMER G. PHILLIPS HOSPITAL FOR NEGROES

The Homer G. Phillips Hospital for Negroes, the Municipal City Hospital No. 2 in St. Louis, began operation March 1. Honorable Harold L. Ickes, Secretary of the Interior, stated in his dedicatory address on February 22 that the hospital was "the largest and finest of its sort in the world."

The new hospital occupies an area of almost two city blocks at St. Ferdinand Avenue and Whittier Street. A six story building contains the administrative offices, laboratory facilities, operating rooms, complete roentgen ray installation and dormitories for interns. Two ward buildings of five stories each contain approximately 670 beds and an outpatient department is located in the basement of one of the ward buildings. There is a five story nurses' home and training school and an attached two story wing with apartments for the medical director.

The hospital was erected at a cost of \$3,160,000 including the site. It was first conceived in a bond issue in 1923 but because of insufficient funds the project was delayed until October, 1923, when construction began. The PWA assisted in the erection of the Homer G. Phillips Hospital and of ten other Negro hospitals in the country providing in all 2048 beds. The St. Louis hospital was one of the first PWA improvements begun.

The city's former Negro Hospital, City Hospital No. 2, was located in an old medical college building; it was overcrowded for many years and lacking in facilities. The new hospital, it is thought, will provide adequate medical and surgical care for the indigent Negroes of St. Louis. It will not only add to the efficiency of medical care but it is a forward step toward increasing the opportunities for Negroes in the medical profession. This modern hos-

pital will offer the Negro physician as well as the intern an opportunity for self improvement.

St. Louis with a large Negro population was definitely handicapped in its lack of hospital facilities for Negroes but the Homer G. Phillips Hospital will provide enough beds and modern facilities for the care and treatment of the indigent sick of the colored population of the city.

AMERICAN MEDICAL GOLFERS TO PLAY IN ATLANTIC CITY, MONDAY, JUNE 7

The American Medical Golfing Association will hold its twenty-third annual tournament at beautiful Seaview Country Club, Atlantic City, New Jersey, on Monday, June 7.

Thirty-six holes of golf will be played in competition for the seventy trophies and prizes in the nine events. Trophies will be awarded for the Association Championship, thirty-six holes gross, the Will Walter Trophy; the Association Handicap Championship, thirty-six holes net, the Detroit Trophy; the Championship Flight, First Gross, thirty-six holes, the St. Louis Trophy; the Championship Flight, First Net, thirty-six holes, the President's Trophy; the Eighteen Hole Championship, the Golden State Trophy; the Eighteen Hole Handicap Championship, the Ben Thomas Trophy; the Maturity Event, limited to Fellows over 60 years of age, the Minneapolis Trophy; the Oldguard Championship, limited to competition of past presidents, the Wendell Phillips Trophy; and the Kickers Handicap, the Wisconsin Trophy. Other events and prizes will be announced at the first tee.

Dr. W. Albert Cook, Tulsa, Oklahoma, is president and Dr. E. S. Edgerton, Wichita, Kansas, and Dr. Clarence Capell, Kansas City, are vice presidents of the American Medical Golfing Association. The association was organized in 1915 by Dr. Will Walter, Dr. Wendell Phillips and Dr. Gene Lewis. It now totals 1300 members representing every state in the Union. There are seventeen living past presidents of the association, among them Dr. Fred Bailey, St. Louis.

The Atlantic City Committee is under the general chairmanship of Dr. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City, N. J., who so ably managed the 1925 Tournament at Seaview, and the 1935 Competition at the Northfield Club. He will be assisted by Drs. I. R. Beir, John Pennington, Karl Scott, Alfred Westney, and R. R. White.

All male Fellows of the American Medical Association are eligible and cordially invited

to become members of the A. M. G. A. Write the Executive Secretary, Bill Burns, 2020 Olds Tower, Lansing, Michigan, for an application blank. Participants in the A. M. G. A. Tournament are required to furnish their home club handicap signed by the club secretary. No handicap over 30 is allowed except in the Kickers' (Blind Bogey). Only active members of the A. M. G. A. may compete for prizes. No trophy is awarded a Fellow who is absent from the annual dinner.

The Seaview Country Club is one of the most elaborate in the country. The A. M. G. A. officers anticipate that some two hundred medical golfers from all parts of the United States will play in Atlantic City on June 7.

NEWS NOTES

The Missouri Public Health Association will hold its annual meeting in Springfield on April 29 and 30 with headquarters at the Kentwood Arms Hotel.

Dr. George D. Kettelkamp, Superintendent of Koch Hospital, Koch, was the guest speaker of the St. Louis Society of X-Ray Technicians at a meeting at Koch Hospital on March 11.

Dr. T. G. Orr, Kansas City, was a guest at the Spring Clinical Conference in Dallas, March 17, and delivered an address on "Treatment of Appendicitis" in a symposium on "Appendicitis."

The Trudeau Club of St. Louis met at the medical amphitheater of Barnes Hospital on March 4. Appearing on the program were Drs. Alfred Goldman, M. L. Arbuckle, Nathan Womack, Brian Blades and J. J. Singer, St. Louis.

Dr. Alexis F. Hartmann, St. Louis, was recently appointed Professor of Pediatrics in Washington University School of Medicine and Physician-in-Chief to St. Louis Children's Hospital to succeed the late Dr. W. McKim Marriott.

The Mid-West Conference on Occupational Disease will be held at the Hotel Statler, Detroit, from May 3 to 7 in conjunction with the annual meetings of the American Association of Industrial Physicians and Surgeons and the Michigan Association of Industrial Physicians and Surgeons.

Dr. John R. Caulk, St. Louis, was elected vice president of the American Association of Clinical Genito-Urinary Surgeons at the annual meeting of the association held in Chicago on January 22 and 23. The president for 1937 is Dr. Herman L. Kretschmer, Chicago.

Dr. Quitman U. Newell, St. Louis, delivered an address at a public meeting in the Municipal Auditorium, Kansas City, March 15, on "The Responsibility of the Public in Cancer Control." The meeting was sponsored by the Women's Field Army for the Control of Cancer.

Dr. Fred W. Bailey, St. Louis, was elected chief of staff of the St. Louis County Hospital, Clayton, at a meeting on March 8. Dr. Leo Will was elected vice chief and Dr. O. P. Hampton, secretary. Dr. Curtis H. Lohr is superintendent of the hospital.

The Children's Bureau of the United States Department of Labor is again sponsoring Child Health Day. May 1 was designated by a Congressional resolution on May 18, 1928, authorizing the President to proclaim May Day as Child Health Day. The purpose of the day is to promote the extension of year around child health services in every community. The slogan for the day is "Health protection for every child."

Dr. Floyd H. Spencer, St. Joseph, has been appointed a member of the St. Joseph Board of Health to fill the unexpired term of the late Dr. H. S. Forgrave. Dr. Spencer has practiced medicine in St. Joseph since 1900 and has lived there since childhood. Dr. Spencer received his medical training at the Central Medical College of St. Joseph and took postgraduate work at the Chicago Medical College and in clinics in Vienna, Paris and Berlin.

Dr. Evarts A. Graham, St. Louis, was the recipient of the John Scott Award at a dinner of the American Philosophical Society in Philadelphia on March 5. The award, consisting of a medal and \$1000, was presented to Dr. Graham in recognition of his application of the roentgen ray in the study and diagnosis of gall-bladder conditions. John Scott was an obscure chemist who died in Scotland 121 years ago. He bequeathed money to Philadelphia specifying that the income be distributed among ingenious men and women.

A memorial plaque to the late Dr. Harvey S. McKay, St. Louis, will be placed in the library of the St. Anthony's Hospital, St. Louis, and the library is to be maintained as a memorial to Dr. McKay. The committee sponsoring the memorial is composed of Drs. Robert E. Schluefer, F. G. A. Bardenheier, M. J. Pulliam and M. J. Glaser, St. Louis.

The Mid-Western and Southern Sections of the American Congress of Physical Therapy held a joint meeting at the St. Louis Medical Society Building, St. Louis, on March 9. Scientific sessions were held in the morning, afternoon and evening and members attended a dinner at the Coronado Hotel. St. Louis physicians appearing on the program were Drs. Albert Kuntz, A. J. Kotkis, Alfred J. Cone and Leon Bromberg.

Four members of the St. Louis Medical College class of 1881 met for an annual dinner at the Missouri Athletic Association, St. Louis, on March 3. Members attending were Drs. James A. Dickson, Willis Hall, Amand Ravold and Max C. Starkloff, St. Louis. Drs. William A. James, Chester, Illinois, and A. S. Gregg, Fayetteville, Arkansas, were unable to attend. Dr. Joseph Grindon, St. Louis, of the class of 1879, the oldest living graduate of the school, was a guest at the dinner.

A chapter of the National Society for the Advancement of Gastro-enterology has been formed in St. Louis. It is planned to include members throughout the state and will be known as the Missouri Chapter. There are forty charter members. Officers of the Chapter are: President, Dr. Horace W. Soper; vice president, Dr. Frank D. Gorham; secretary, Dr. Charles W. Duden; treasurer, Dr. Lee Pettit Gay; executive board, Drs. David L. Penney and Anthony B. Day; nominating committee, Drs. J. W. Thompson and Oscar Zink; program committee, Drs. W. J. Siebert and L. D. Cassidy; membership committee, Drs. O. P. J. Falk and Oliver Abel, Jr., and chapter reporter, Dr. C. Malone Stroud. Physicians residing in the state who are interested in gastro-enterology are invited to communicate with the secretary, Dr. Charles W. Duden, 3720 Washington Avenue, St. Louis.

The Kentucky Derby will be run at Louisville on Saturday, May 1. As some members may plan to attend the Derby and go to the Annual Session at Cape Girardeau, May 10 to 12, from Louisville the highway instructions

are given. Mileage from St. Louis to Louisville is 270 miles; following highway 50 to Vincennes, Indiana, and 150 on into Louisville. The mileage between Louisville and Cape Girardeau is 240 miles and the route is as follows: Leave Louisville on 62; at Evansville go south on 41 for thirteen miles to Henderson; from Henderson to Morganfield on 60; follow 56 to the Ohio River and after crossing the river continue on 13 to Vienna; follow 146 into Cape Girardeau. It is 143 miles from St. Louis to Cape Girardeau on route 61. On the Illinois side of the Mississippi the route is 13 to Belleville; 159 to Red Bud; 3 to Chester; 150 to the turn across the Mississippi into Cape Girardeau.

Dr. Ernest Sachs, St. Louis, was honored upon the completion of twenty-five years of continuous teaching of neurological surgery in Washington University School of Medicine at a dinner at the Jefferson Hotel on March 20. Dr. Sachs was the first professor of neurological surgery in any American university. The professorship at Washington University was created for him in 1919. A silver plaque bearing an exact reproduction of his favorite surgical instrument was presented to him. It bore the inscription "From the Fellows he has trained in neurological surgery during his first 25 years of continuous teaching, 1912-1937." Major Philip Green, United States Army, Hot Springs National Park, one of the twenty graduate fellows whom Dr. Sachs has trained, made the presentation. Dr. Leonard T. Furlow, St. Louis, another of the group of twenty, presided at the dinner. Dr. Barney Brooks, Nashville, and Drs. Evarts A. Graham and Sidney I. Schwab, St. Louis, were speakers and messages of congratulations from doctors throughout the country were read.

The Medical Corps of the United States Navy offers a number of internships and commissions to graduates of class A medical schools. Examinations will begin on May 10, 1937, and applications should be on file at least one month prior to that date. Qualified candidates who have completed internships in civilian hospitals will be commissioned as assistant surgeons with the rank of lieutenant (junior grade) and assigned to the Naval Medical School, Washington, D. C., for a postgraduate course of instruction. Senior medical students who qualify for appointments to internships in naval hospitals will be appointed acting assistant surgeons with the rank of lieutenant (junior grade) for temporary service during the intern year and, upon satisfactory completion of internship, will be allowed to appear for competitive examina-

tion for permanent appointment. Should an intern desire to return to the practice of medicine in civil life his appointment as an acting assistant surgeon will be terminated and he will be honorably discharged from the naval service. Candidates must be United States citizens between the ages of 21 and 32 years at the time of appointment, and pass a physical and professional examination. Officers of the rank of lieutenant (junior grade) without dependents receive compensation of \$2699 per year while those with dependents receive \$3158 per year. There are additional cash allowances. All communications should be addressed to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

The Medico-Legal Committee of the St. Louis Medical Society, established for the purpose of making a test suit in the State Supreme Court relative to the practice of medicine by corporations, is continuing its drive for funds to carry out its purpose. The Retail Druggists Association of St. Louis has become actively interested in the campaign and its monthly *Bulletin*, carrying an editorial relative to the Medico-Legal Committee's activities, is being sent to the secretaries of all county medical societies for distribution. The Committee announces contributions of \$20 from the Cole County Medical Society, \$10 from Butler County Medical Society, \$25 from Marion-Ralls County Medical Society and \$100 from the Buchanan County Medical Society. In addition several rural members of the medical profession have contributed amounts of \$5 and \$10 personally. The committee appreciates this cooperation and hopes to keep the Missouri physicians informed of its activities in the coming months. Any physician desiring to make a contribution can do so by making a check payable to the Medico-Legal Fund of the St. Louis Medical Society, 3839 Lindell Blvd., St. Louis.

The Greene County Medical Society sponsored a meeting of Councilor Districts 27, 28 and 31 on February 26 at Springfield in the Kentwood Arms Hotel. The session opened at 1 o'clock with a memorial to the late Dr. J. C. B. Davis, Willow Springs, former Councilor of the 27th District, by the Reverend D. D. McAdams, Willow Springs. A scientific program followed with addresses by Drs. E. Lee Miller and Ralph R. Wilson, Kansas City, and C. H. Neilson, St. Louis. A banquet was served at 6:30 with Dr. Robert Vinyard, Springfield, acting as toastmaster. Dr. Richard L. Sutton, Jr., Kansas City, gave an illustrated lecture on "The Far North and Modern Whaling." The Wo-

man's Auxiliary to the Greene County Medical Society entertained wives of visiting physicians at a tea in the afternoon. Among Councilors present were Drs. W. M. West, Monett; H. A. Lowe, Springfield; R. M. James, Joplin; A. R. McComas, Sturgeon; W. H. Breuer, St. James; W. L. Allee, Eldon. Dr. Ross A. Woolsey, St. Louis, President of the State Medical Association, and Dr. Dudley S. Conley, Columbia, President-Elect, were present. More than 200 attended the meeting and banquet. The Greene County Medical Society committee in charge of the program consisted of the following: Drs. C. Souter Smith, Robert Vinyard, T. E. Ferrell, Ronald Elkins, George Powell, J. H. Kelley and Paul F. Cole, Springfield.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Abbott Laboratories

Calcium Gluconate-Abbott

Ampules Calcium Gluconate 10%

Calco Chemical Co.

Acriflavine Neutral-Calco, Vaginal Capsules, 1/2 grain

Chappel Bros., Inc.

Chappel Liver Extract Concentrated (Intramuscular)

Vials Chappel Liver Extract Concentrated (Intramuscular), 3.3 cc.

Eli Lilly & Co.

Protamine, Zinc & Iletin (Insulin-Lilly)

Protamine, Zinc & Iletin (Insulin-Lilly), 10 cc.

Mallinckrodt Chemical Works, Inc.

Papaverine Hydrochloride

McNeil Laboratories

Tablets Digitalis Duo-Test McNeil, 1/2 grain

Tablets Digitalis Duo-Test McNeil, 1 grain

Tablets Digitalis Duo-Test McNeil, 1 1/2 grains

Capsules Digitalis Duo-Test McNeil, 1 1/2 grains

Parke, Davis & Co.

Liver Extract (Intramuscular)—Parke, Davis & Co., 10 cc. vials

Rare Chemicals, Inc.

Optochin Hydrochloride

Tablets Optichin Hydrochloride 0.1 Gm.

Schieffelin & Co.

Möller Plain Cod Liver Oil Standardized

Scientific Sugars Co.

Kinney's Yeast Extract Containing Vitamin B Complex

E. R. Squibb & Sons

Protamine Zinc Insulin—Squibb

Protamine Zinc Insulin—Squibb, 10 cc.

The following members have accepted invitations of the Postgraduate Committee, the Cancer Committee and the McAlester Foundation of the State Association to deliver addresses at meetings of component county medical societies and lay meetings:

Drs. E. Lee Miller and Ralph R. Wilson, Kansas City, and C. H. Neilson, St. Louis, were guests of the 27th, 28th and 31st Councilor Districts at Springfield on February 26. Dr. Miller spoke on "Estimate of Cholecystitis Patient in Relation to Hepatorenal Syndrome," Dr. Wilson on "Placenta Previa With Special Reference to Treatment," and Dr. Neilson on "Some Observations on the Treatment of Functional Disease."

Dr. Carl F. Vohs, St. Louis, was the guest of the Laclede County Medical Society at Lebanon on March 2 and spoke on "Medical Economics."

The Dallas-Hickory-Polk County Medical Society had as its guests at Humansville on March 2 Drs. Earl C. Padgett and Vincent Williams, Kansas City, and O. F. Bradford, Columbia. Dr. Padgett spoke on "Care of the Severely Burned With Especial Reference to Skin Grafting"; Dr. Williams talked on "Cancer of the Rectum," and Dr. Bradford discussed "Pneumonia." At a public meeting Dr. Padgett spoke on "The General Program of Cancer Control Throughout the Country" and Dr. Williams on "The Prevention and Diagnosis of Cancer in General."

On March 3 the Johnson County Medical Society had Drs. E. Kip Robinson and F. I. Wilson, Kansas City, as guests at their meeting at Warrensburg. Dr. Robinson spoke on "Newer Methods in Radiation Treatment of Carcinoma of the Rectum," and Dr. Wilson on "Carcinoma of the Rectum, Surgical Treatment."

Drs. August A. Werner and Paul F. Fletcher, St. Louis, were guests of the Six County Medical Society at Malden on March 4. Dr. Werner talked on "Gynecological Endocrinology" and Dr. Fletcher on "Diagnosis and Treatment of Chronic Endocervicitis."

The Marion-Ralls County Medical Society had as guests at its meeting in Hannibal on March 5 Drs. George T. Gafney and W. K. McIntyre, St. Louis, who spoke on "Cancer of the Rectum" and "Common Diseases of the Rectum" respectively.

Dr. E. Lee Miller, Kansas City, and Dr. M. Pinson Neal, Columbia, were guests of the Cole County Medical Society at Jefferson City on March 10. Several lectures were presented before lay groups, comprised principally of students, and scientific discussions were presented before the Society. All discussions were on "Appendicitis."

On March 23 Drs. Ferdinand C. Helwig and

Rex. L. Diveley, Kansas City, were guests of the Lafayette County Medical Society at Oak Grove. Dr. Helwig spoke on "Cancer" and Dr. Diveley on "New Growth in Bones."

The St. Francois-Iron-Madison-Washington-Reynolds County Medical Society met at Farmington on March 24 and had as its guests Drs. E. H. Rohlfing and Lee D. Cady, St. Louis. Dr. Rohlfing discussed "Treatment of Congenital Syphilis" and Dr. Cady spoke on "Control of the Spread of Syphilis."

Drs. M. Pinson Neal, Columbia, and Eugene P. Hamilton, Kansas City, were guests of the Saline County Medical Society at Marshall on March 31 and spoke before a lay audience in the afternoon and before the Society in the evening on "Appendicitis."

MISCELLANY

BUDGET FOR 1937

Salaries (office and JOURNAL)	\$12,300.00
Printing of JOURNAL	6,500.00
Legislation	2,500.00
Defense	1,000.00
Postage	400.00
Postgraduate Work	1,000.00
Printing and stationery	800.00
Traveling expenses, Secretary and Assistant Secretary	1,100.00
Telephone and telegraph	800.00
Rent of office and light	1,400.00
Meetings (Annual Session, Council, Executive Committee)	3,000.00
General expense and miscellaneous	800.00
Total	\$31,600.00

FINANCIAL STATEMENT FOR 1936

ROBERT A. LENNERTSON
CERTIFIED PUBLIC ACCOUNTANT
SAINT LOUIS

March 17, 1937.

Missouri State Medical Association,
St. Louis, Missouri.

Gentlemen:

Pursuant to instructions received, I have examined the accounts of the Missouri State Medical Association for the year 1936 and prepared therefrom the following attached statements:

- Exhibit A. Balance Sheet as of December 31, 1936.
- Exhibit B. Statement of Income and Expenses for the year 1936.
- Exhibit C. Summary of Cash Receipts and Disbursements for the year 1936.
- Exhibit D. Dues Receivable and Membership by Counties December 31, 1936.

SCOPE OF EXAMINATION

My examination consisted of a careful review of the accounts of the Association for year 1936 and the verification of the asset and liability accounts at December 31. The cash receipts for members' dues, JOURNAL subscriptions, JOURNAL advertising income, rent of office space and exhibition space, as shown by the cash record, were traced into the bank account as deposits. Selective tests have been made of the income from various sources and the accounts examined were found to be properly entered on the books. Space in THE JOURNAL not occupied by paid advertisements has been filled by publishing reciprocal and complimentary advertisements. The cash disbursements for the period were verified with paid voucher cheques properly approved by the officers, purchase invoices and other data on file.

OPERATIONS

The financial result of the activities of the Association for the year 1936 was a net income of \$387.14 as set forth in Exhibit B. A summary thereof follows:

Particulars	General Activities	JOURNAL Publication	Together
Income	\$19,845.50	\$11,107.50	\$30,953.00
Expenses	18,409.42	12,156.44	30,565.86
Net income or deficit	\$ 1,436.08	\$ 1,048.94	\$ 387.14

BALANCE SHEET

The Balance Sheet, Exhibit A, presents the financial position of the Missouri State Medical Association at December 31, 1936, and shows it to be in a sound condition. Comments on the accounts included therein follow:

A certificate was obtained from the bank in verification of the funds on deposit and the cash on hand was counted. The Secretary's account represents the unexpended portion of funds held by him for the payment of sundry small bills.

Ledger accounts were inspected as of December 31, for the balances due from JOURNAL advertisers in the sum of \$615.10. The accounts are considered good and collectible with the possible exception of one delinquent account in the sum of \$125.25. Uncollectible accounts in the sum of \$75.00 were charged off during the year.

Unpaid members' dues were checked with the individual membership cards on file and the amounts due by years and Societies are set forth in Exhibit D. A summary thereof follows:

Year 1933 and prior	\$ 741.00
Year 1934	824.00
Year 1935	1,304.00
Year 1936	3,237.00
Total	\$6,106.00
Less prepaid dues	536.00
Net balance	\$5,570.00

This sum is offset by a reserve account in a like amount pending the collection of the delinquent dues. During the year the membership increased from 3155 members to 3217 members, an increase of 62.

The furniture and fixtures are stated at book value, no depreciation having been taken thereon for the year 1936. Depreciation has been deducted from the cost on several occasions in the past.

Accounts payable in the sum of \$245.27 were verified with the records of the Association. A contingent liability exists in the sum of \$6600.00 representing twenty-two malpractice suits pending against members for which the organization may be required under its By-Laws to furnish assistance to the extent of \$300 in each case.

GENERAL

The following insurance is in effect:

Fire insurance on furniture, fixtures, books and supplies	\$ 1,000.00
Surety bond on Dr. E. J. Goodwin, Secretary	1,000.00
Surety bond on Dr. J. R. Caulk, Treasurer	20,000.00

The lease on the office space in the Missouri Theatre Building provides for a rental of \$115.00 per month to January 31, 1937, and \$125.00 per month thereafter to January 31, 1938, on which date the lease expires.

The books and records presented for my inspection were found in a satisfactory condition, the same having been well maintained throughout the year.

Yours very truly,

R. A. LENNERTSON, Certified Public Accountant.

EXHIBIT A.

MISSOURI STATE MEDICAL ASSOCIATION
BALANCE SHEET AS OF DECEMBER 31, 1936

Assets

CASH:		
General Fund	} Exhibit C	\$2,186.06
Legislative Fund		3,511.69
Sinking Fund		3,289.00
Defense Fund		911.76
		\$ 9,898.51
Accounts Receivable—Advertisers		615.10
Dues Receivable—Exhibit D		5,570.00
Furniture and Fixtures		1,455.50
Paper Inventory		755.60
Prepaid Traveling Expense		122.79
		\$18,417.50

Liabilities

Accounts Payable:	
Supplies and Expense	\$ 116.13
Advance Payments by Advertisers	129.14
	\$ 245.27

Contingent Liability:

To Members on 22 Malpractice Suits ..\$6,600.00	
Reserve for Uncollected Dues	5,570.00
Reserve for Fund Balances:	
General Fund	\$2,186.06
Legislative Fund	3,511.69
Sinking Fund	3,289.00
Defense Fund	911.76
	9,898.51
Surplus	2,703.72
	\$18,417.50

EXHIBIT B.

MISSOURI STATE MEDICAL ASSOCIATION
STATEMENT OF INCOME AND EXPENSES
FOR THE YEAR 1936

	General Activities	JOURNAL Publication	Together
INCOME:			
Dues Received (includes \$1.00 per member annually for THE JOURNAL)	\$18,905.50	\$ 2,792.00	\$21,697.50
Rentals—Annual Session Exhibit Space	400.00		400.00
Rent from Sub-tenant (office space)	540.00		540.00
Subscriptions to THE JOURNAL—nonmembers		42.75	42.75
Advertising Space—THE JOURNAL		8,272.75	8,272.75
Total income	\$19,845.50	\$11,107.50	\$30,953.00
EXPENSES:			
Officers' Salaries	\$ 5,456.84	\$ 3,344.00	\$ 8,800.84
Office Salaries		1,322.00	3,480.00
Office Rent and Light ..	1,414.90		1,414.90
Postage	643.95	292.64	936.59
Stationery, Printing and Office Supplies	833.12		833.12
THE JOURNAL—Paper, Printing and Mailing		5,356.33	5,356.33
Illustrations and Cuts ..		350.59	350.59
Telephone and Telegraph ..	881.42		881.42
Insurance	61.63		61.63
General Expense	597.54	118.00	715.54
Bad Debts		75.00	75.00
Cash Discounts to Advertisers		314.64	314.64
Commissions on JOURNAL Advertising		981.57	981.57
Sales Tax		1.67	1.67
Traveling Expense—Assistant Secretary ..	854.21		854.21
Badges	89.99		89.99
Meetings	3,144.64		3,144.64
Cancer Committee Meeting	87.97		87.97
Postgraduate Meetings ..	371.63		371.63
Legislative Expense	900.00		900.00
Defense—Malpractice Suits	913.58		913.58
Total expense	\$18,409.42	\$12,156.44	\$30,565.86
Net income or deficit for the period	\$ 1,436.08	\$ 1,048.94	\$ 387.14

EXHIBIT C.

MISSOURI STATE MEDICAL ASSOCIATION, SUMMARY OF CASH RECEIPTS AND DISBURSEMENTS BY FUNDS FOR THE YEAR 1936

	General Fund	Legislative Fund	Sinking Fund	Defense Fund
Balance, January 1, 1936	\$ 3,405.34	\$2,819.69	\$3,069.00	\$1,815.34
Receipts	30,022.25			
Transfers of Funds	980.00	2,792.00	1,200.00	
Total to Be Accounted for	\$34,407.59	\$5,611.69	\$4,269.00	\$1,815.34
Disbursements	\$29,429.53	\$ 900.00	\$.....	\$ 903.58
Transfer of Funds	2,792.00	1,200.00	980.00	
Total Disbursements ..	\$32,221.53	\$2,100.00	\$ 980.00	\$ 903.58
Balance December 31, 1936	\$ 2,186.06	\$3,511.69	\$3,289.00	\$ 911.76

FUND BALANCES DECEMBER 31, 1936

General Fund	\$2,186.06
Legislative Fund	3,511.69
Sinking Fund	3,289.00
Defense Fund	911.76
Total	\$9,898.51
Represented by:	
Cash in Bank, Mercantile-Commerce Bank and Trust Co.	\$9,734.08
Secretary's Account	144.43
Petty Cash Fund	20.00
Total	\$9,898.51

EXHIBIT D.

MISSOURI STATE MEDICAL ASSOCIATION, DUES
RECEIVABLE AND MEMBERSHIP BY COUNTIES
AS OF DECEMBER 31, 1936

Counties	1933 and Prior	1934	1935	1936	Total	No. of Mem- bers
Adair-Schuyler-Knox-Sullivan	\$ 16.00	\$ 16.00	\$ 32.00	\$ 64.00	26	
Atchison	8.00	8.00	32.00	48.00	10	
Audrain	8.00	8.00	8.00	32.00	17	
Barry .....	.....	12.00	24.00	36.00	10	
Barton	8.00	8.00	16.00	48.00	10	
Bates	24.00	24.00	32.00	104.00	18	
Benton .....	.....	.....	.....	6	.....
Boone	16.00	24.00	32.00	40.00	112.00	40
Buchanan .....	.....	24.00	64.00	88.00	110	
Butler .....	.....	8.00	16.00	24.00	19	
Caldwell-Livingston	72.00	48.00	48.00	72.00	240.00	19
Callaway ..	8.00	24.00	24.00	64.00	120.00	18
Camden .....	.....	.....	.....	2	.....
Cape Girardeau .....	.....	8.00	24.00	32.00	33	
Carroll	16.00	24.00	24.00	32.00	96.00	10
Carter-Shannon .....	.....	8.00	8.00	16.00	10	
Cass .....	.....	8.00	8.00	16.00	32.00	18
Chariton .....	.....	.....	.....	.....	17	
Christian	16.00	8.00	8.00	8.00	40.00	7
Clark .....	.....	.....	.....	.....	2	
Clay	16.00	8.00	32.00	96.00	152.00	33
Clinton .....	.....	24.00	32.00	56.00	8	
Cole	40.00	68.00	80.00	128.00	316.00	39
Cooper	40.00	32.00	40.00	44.00	156.00	19
Dallas-Hickory-Polk .....	.....	8.00	8.00	16.00	21	
De Kalb ...	8.00	8.00	8.00	24.00	48.00	4
Dent .....	.....	.....	.....	.....	4	
Dunklin	16.00	24.00	56.00	72.00	168.00	23
Franklin ...	8.00	8.00	8.00	8.00	32.00	21
Gasconade-Maries-Osage	24.00	24.00	32.00	31.00	111.00	6
Gentry	8.00	16.00	16.00	32.00	72.00	8
Greene .....	.....	24.00	56.00	128.00	208.00	97
Grundy-Daviess ..	37.00	40.00	40.00	62.00	179.00	22
Harrison	24.00	8.00	8.00	16.00	56.00	4
Henry	16.00	16.00	16.00	16.00	64.00	16
Holt .....	.....	.....	.....	.....	8	
Howard .....	.....	8.00	8.00	16.00	7	
Howell-Oregon-Texas-Wright-Douglas .....	.....	.....	.....	44.00	44.00	34
Jackson ....	.....	8.00	48.00	180.00	236.00	602
Jasper .....	.....	8.00	16.00	40.00	64.00	62
Jefferson .....	.....	.....	.....	.....	13	
Johnson ....	.....	8.00	16.00	24.00	48.00	19
Laclede	32.00	16.00	16.00	16.00	80.00	13
Lafayette .....	.....	8.00	16.00	60.00	84.00	30
Lawrence-Stone	40.00	24.00	24.00	32.00	120.00	17
Lewis .....	.....	.....	.....	8.00	8.00	4
Lincoln .....	.....	.....	.....	56.00	56.00	8
Linn .....	.....	.....	8.00	32.00	40.00	15
Macon	8.00	8.00	8.00	8.00	32.00	7
Marion-Ralls .....	.....	16.00	16.00	48.00	80.00	35
Mercer .....	.....	.....	.....	16.00	16.00	7
Miller	16.00	16.00	16.00	32.00	80.00	10
Mississippi .....	.....	8.00	8.00	8.00	24.00	6
Moniteau .....	.....	.....	.....	.....	6	
Montgomery .....	.....	.....	.....	.....	8	

Counties	1933 and Prior	1934	1935	1936	Total	No. of Mem- bers
Morgan						3
New Madrid	16.00	8.00	16.00	16.00	56.00	3
Newton	16.00	8.00	8.00	16.00	48.00	15
Nodaway	56.00	48.00	64.00	88.00	256.00	25
Pemiscot			16.00	56.00	72.00	17
Perry						5
Pettis	8.00	16.00	24.00	24.00	72.00	34
Phelps-Crawford						22
Pike						12
Platte			4.00	12.00	16.00	17
Pulaski			8.00	8.00	16.00	7
Putnam		8.00	16.00	16.00	40.00	6
Randolph-Monroe	24.00	24.00	40.00	56.00	144.00	31
Ray				36.00	44.00	13
St. Charles			8.00	36.00	44.00	28
St. Francois-Iron-Madison-Washington-Reynolds	16.00	16.00	16.00	32.00	80.00	35
St. Genevieve						6
St. Louis	16.00	36.00	68.00	196.00	316.00	156
St. Louis City		16.00	8.00	696.00	720.00	1,040
Saline				16.00	16.00	26
Scotland			8.00	16.00	24.00	4
Scott	16.00	8.00	8.00	32.00	64.00	13
Shelby	16.00	16.00	16.00	16.00	64.00	8
Stoddard	24.00	16.00	16.00	16.00	72.00	10
Taney	32.00	8.00	8.00	8.00	56.00	3
Vernon-Cedar			16.00	40.00	56.00	29
Wayne						4
Webster						7
Totals	\$741.00	\$824.00	\$1304.00	\$3,237.00	\$6,106.00	3,217

Less Prepaid Dues:	
Bates	\$ 8.00
Cape Girardeau	32.00
Carter-Shannon	32.00
Chariton	56.00
Cole	16.00
Dunklin	48.00
Greene	12.00
Henry	8.00
Jackson	72.00
Jasper	20.00
Marion-Ralls	8.00
Mercer	8.00
Perry	40.00
Platte	4.00
Randolph-Monroe	4.00
St. Genevieve	48.00
St. Louis	8.00
St. Louis City	88.00
Wayne	24.00
Total Prepaid Dues	\$ 536.00
Net Balance	\$5,570.00

MEDICAL ECONOMICS

MORRIS B. SIMPSON, M.D., Kansas City, Member,
Committee on Medical Economics

Employee's Benefit Associations

We doubt the necessity of defining or describing an employee's benefit association. We believe every physician knows how these associations were founded and how they operate. Beginning with the employees of railroads, mines, lumber and other more or less isolated industries, where the frequency of accidental injury and illness necessitates the full time or part time employment of a physician or group of physicians to insure efficient medical and surgical care, we find today that workers of all types are being organized in this manner.

In reference to the personnel of membership, our study has shown that these associations do not always confine their membership to those in the lower income bracket but take in high salaried officials who are perfectly able as well as willing to pay the physician and the hospital the usual fees charged for services to men of their class.

The type of medical care that members of employee benefit associations receive we believe to be very good and we are certain that the actual cost is far above the amount paid. Frequently an official of the benefit association will arrange for a reduced rate at a hospital. The hospital, as is always the custom, gives all patients equally good care so the regular patient is helping to pay the bill for the "reduced rate" patient. We are glad to say that some benefit associations, especially those recently organized, are paying the regular hospital charges; also the member is allowed a free choice of hospital, if no hospital is maintained by the benefit association.

The medical personnel of the greater per cent of the employee's benefit associations is made up of ethical men who are capable of practicing good medicine. The free choice of physician is allowed by very few of the benefit associations, which, of course, is a hardship on the patient and is unethical. The physician's compensation is usually a salary which seldom pays for more than a small percentage of the actual work done, but the physician continues with the work feeling that he might as well have it as the other fellow and thus keeps himself and other doctors from receiving their just pay. Some associations, especially railroads, employ a great array of specialists. The railroads frequently give the physician for part compensation a railroad pass which the physician probably never uses but likes to show to his friends. This work should be done on a case basis, the fee in line with that paid by industrial insurance companies. This method of compensating the physician is being adopted by a great many of the recently organized associations.

As we see it, the employee's benefit association has been with us many years. In the last few years they are rapidly increasing. They are here to stay. It is up to the medical man to correct its ills and guide its course. The members of a great many of these associations are employed by industries doing an interstate business so this is not a problem for a county medical society or state medical association, but is a problem for the American Medical Association. We hope some constructive rulings on this subject will appear in an early report of the Judicial Council of the American Medical Association.

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are here reprinted that the members throughout the state may have the opportunity of reading them.

Late (Tertiary) Syphilis Bones and Joints

Periostitis is overwhelmingly the most common lesion of the osseous system due to syphilis. Next in frequency are osteomyelitis, arthritis, osteitis, spondylitis and arthritis.

As to distribution, involvement of the cranial and nasopalatine bones ranks first with those of the tibia coming second. Next in order is the clavicle, the inner third of which is notably a site of predilection for syphilis. With the sternum and ribs included the shoulder girdle, especially the sterno-clavicular junction, easily leads all sites except the tibia. With improved methods of diagnosis spondylitis which was formerly a rare manifestation has emerged into relative prominence. The comparative ratio of joint to bone infection is almost 1 to 7, in the order of knee, wrist, ankle, elbow, hip and spine.

The great importance of pain and swelling in late

osseous syphilis in many different series is noteworthy. In the majority of cases pain is the symptom for which the patient seeks relief. The literature has placed great emphasis upon nocturnal pain but recent surveys have not borne out the importance of this symptom; it is significant but not infallible or invariable.

In general, it may be said that syphilitic lesions of the bones are less specific in their characteristics than those of the skin. This fact makes it important to bring to bear all the collateral evidence and to utilize all possible aids in making a diagnosis. And yet the greatest aid in diagnosis has been neglected in this stage of the disease by the profession at large—the serological blood test. While it may be a difficult measure to apply in practice day by day, the standard toward which the physician should strive should be a serological test in every bone and joint case. Next to the serological blood test in importance is the roentgen ray plate. It is indispensable but not to be overemphasized since it is responsible for an outright diagnosis in only about 50 per cent of cases.

The importance of examining the patient completely, not merely the lesion, cannot be too greatly stressed. Syphilis eludes the partial or subjective examiner. In early cases much pain with little structural change suggests syphilis. Of especial importance is the point of exquisite tenderness over early periosteal lesions. The abnormal but immobile or hypermobile joint should arouse suspicion as well as bilateral hydrarthrosis especially if recurrent.

The art of diagnosing late cutaneous syphilides was emphasized in an earlier article. In dealing with osseous manifestations this is of paramount importance since many of these cases present syphilides of the skin. The ability of the physician to recognize the cutaneous lesion may frequently shorten the course of the osseous form of the disease by months or years. A destructive skin lesion or scar associated with bone or joint impairment should never be lightly dismissed. The diagnostic earmarks of congenital syphilis must also be kept constantly in mind, since many serious mistakes in diagnosis of bone disease are directly traceable to lack of familiarity with this field. The most frequent error in diagnosis is made through calling certain signs and symptoms "rheumatism." Patients often initiate a mistaken trend of thought in their medical advisors by self-diagnosis of "rheumatism" and "neuralgia." The absence of abnormal roentgen ray findings in the early syphilitic joint, especially in benign hydrarthrosis, contribute still further to deceiving the hurried examiner, or one who has not become "suspicious minded" toward syphilis.

Surgical operative interference in syphilitic bone disease is of frequent occurrence. The proportion of such cases can be greatly reduced by an adequate consideration of syphilis as a possibility.

Late (Tertiary Syphilis)—Cardiovascular System Diagnosis

The role of cardiovascular syphilis as Nemesis, its trick of taking toll of the years of mature achievement, the best of middle life, cannot be overestimated. Many a young man without a foothold in the world when he acquires his primary lesion, is a member of the substantial business or professional community when his vascular degeneration overtakes him. He is then, to his own detriment perhaps, too respectable in the eyes of his medical advisor or his life insurance examiner to have syphilis considered seriously, or he has forgotten its obscure beginnings.

Very little syphilitic cardiovascular disease is recognized in the first decade after infection; 45 per cent is recognized in the second decade and 30 per cent in

the third. It is obvious then that improvement in the present status of diagnosis must be made by studying the patient in the first five and ten years after infection in order to anticipate irremediable damage. It is only by the most habitual and painstaking examination of the patient as a whole that the early signs of progressive cardiovascular degeneration may be detected. It is necessary to keep in mind that latent syphilis may be present in every patient who consults the physician. This includes a systematic inquiry into the history and a routine serological blood test in all persons in youth and early middle age. In cases of serological negative latency, with suspicious clinical symptoms, provocative procedure should be employed, and a spinal fluid examination should be made.

The earliest clinical diagnosis is made by means of the stethoscope. Accentuation of the aortic second sound by a rapping, ringing, quality is the earliest warning of aortic disease. When it appears in a person under thirty, it calls for one or more serological tests and a full search for syphilis. The next, a somewhat more definite sign, is the appearance of a systolic murmur in the aortic area, transmitted down the left border of the sternum which, at a more advanced stage, loses its softness and may become rough or harsh, and is transmitted upward into the vessels of the neck as well as downward along the sternum. Percussion signs of broadening of the area of cardiac dullness have confirmatory value.

In seeking for cardiovascular signs of syphilis, those of peri-aortitis should be sought first, then those of endocarditis, and finally those of regurgitation which means fibrosis and irremediable damage.

Early symptoms are also of great importance. Dyspnoea and precordial distress are the earliest and most frequent. Actual pain, bought on by exertion and showing a tendency to radiate into one or both arms or upward in the neck, may appear before any lesion can be demonstrated by physical signs. It is better to over-emphasize rather than underemphasize the possibilities of syphilis in the so-called pseudo-anginas and neurotic hearts, which have never been completely evaluated from the standpoint of modern syphilology. Any patient with an "irritable" heart or precordial distress deserves at least a serological test and instruction to return in a year even though the physical findings are negative. The inclination to diagnosis "neurasthenia" or "menopause" is neither safe for the patient nor satisfying to the physician when subsequent events demonstrate the underlying cardiovascular syphilis.

Diagnosis in late cardiovascular syphilis centers around the identification of aneurysm. If myocardial and coronary changes are not too pronounced, much may be done for patients with aneurysm in the way of comfort and increased life expectancy by proper treatment. Hence the earliest possible recognition of this lesion is imperative. The fluoroscope and percussion are the most important factors in its diagnosis. (Adapted from Stokes.)

Late (Tertiary) Syphilis—Cardiovascular System Treatment

Just as syphilis of the cardiovascular system usually comes to the consulting room years too late, so it reaches the therapist long after curative results or even arrest can be hoped for.

The weakest spots in the prognosis and outlook for treatment of cardiovascular syphilis are the myocardium and the coronary circulation. The next weakest spot is a seriously damaged vessel wall, whether in a large thoracic aneurysm or in a miliary aneurysm of a cerebral artery whose susceptibility to rupture or to obliteration may result in sudden death.

Early cases, however, present a hopeful prognosis if treatment is pushed. There has been a tendency to give too little treatment to patients with a favorable background, thus failing at the start to secure complete arrest. The physician has frequently been held back in his medication by the symptomatic and cautious approach essential in handling advanced cardiac cases, and the question as to whether the arsphenamines should be used at all in cardiovascular syphilis.

In early cases experience seems to bear out the fact that if four or five courses of the arsphenamines are accepted as a minimum, and their resumption is made to follow any signs of progress of the lesion, permanent results can usually be obtained. Short, sharp, soluble mercurial courses and bismuth should also be used in these cases.

In using the arsphenamines in cardiovascular syphilis, their rapidity of action and the possibility of producing a Herxheimer flare-up must be constantly borne in mind. These two characteristics of the drug are the ones most likely to produce the "therapeutic paradox" in which the patient dies from the too rapid healing of his lesion. Closure of a partially obliterated coronary vessel or branch by edema at some spot of active gummatous arteritis, or rapid strangulation by too quick scar formation and healing, may produce death before any compensatory mechanism can come into play.

It is evident that in the presence of coronary and myocardial contraindications, or of a large aneurysm, the arsphenamines must be used with caution in small doses after a long preparation with mercury and iodide. In the extreme grades of any of these conditions it is probably wiser not to use the arsphenamines at all.

Bismuth is proving itself to be a valuable aid in the treatment of cardiovascular syphilis. The method of dosage is 0.01 to 0.025 gm. every three to four days in the most severe cases, gradually increasing to full dosage of 0.1 to 0.2 gm. weekly as the patient improves. A cautious beginning and later intensification, as with the arsphenamines, is the course of safety.

The iodides should be used invariably and from the outset in every case of syphilitic vascular lesion. The dosage should range from 20 to 50 or 100 gr. three times a day. For patients suffering from decompensation, smaller doses may be necessary on account of gastric irritability. In the general picture of cardiovascular renal disease with hypertension, associated with syphilis, iodide is indispensable and should often be used alone for some time before mercury or the arsphenamines are considered.

The changes which take place in the cardiovascular mechanism under treatment for syphilis involve strains which call for limitation of activities and, in more advanced cases, rest in bed. The patient must have it impressed upon him that an overload, physical or mental, is the chief menace to his recovery. (Adapted from Stokes.)

OBITUARY

HARRISON SALES FORGRAVE, M.D.

Dr. H. S. Forgrave, St. Joseph, a graduate of the Central Medical College of St. Joseph, 1897, died February 14 at the St. Joseph's Hospital of a blood clot resulting from an infected foot. Dr. Forgrave was 63 years old.

Dr. Forgrave was born in Richland, Iowa. In 1890 he moved with his family to St. Joseph and attended high school there. After receiving his medical education he began his practice in Corning, Missouri. He

returned to St. Joseph in 1899 and was associated with the late Dr. O. B. Campbell. In 1906 Dr. Forgrave took postgraduate work in the University of Chicago and in 1913 studied in London, Vienna and Berlin clinics. He returned to St. Joseph in 1914 and had remained in practice there.

Dr. Forgrave's grandfather, four great uncles and his father-in-law were medical men and Drs. Paul L. Forgrave and L. R. Forgrave, St. Joseph, are his brothers. His son, John Robert Forgrave, is a senior in medicine in Northwestern University School of Medicine.

Dr. Forgrave is a past president of the Buchanan County Medical Society. At the time of his death he was president of the St. Joseph Board of Health and had played a large part in the effort to reorganize public health activities in conjunction with the Council of Social Agencies. For many years he was a member of the Chamber of Commerce and at one time was a member of its board of directors. He was a thirty-second degree Mason.

Dr. Forgrave was well known and well loved in his community. Devoting himself to his practice he did not take an active part in many organizations but was generous with his time and money to help others.

He is survived by his widow, Mrs. Jessie Chesney Forgrave, a daughter, a son, three brothers and a grandson.

J. C. B. DAVIS, M.D.

Dr. J. C. B. Davis, Willow Springs, Councilor of the Twenty-seventh District and Chairman of the Publication Committee of the Missouri State Medical Association, President of the South Central Counties Medical Society and for over thirty years a prominent physician of Willow Springs, died January 26, 1937. His death was at the hand of a youthful kidnaper who lured him into a stolen automobile on a fake emergency call, drove a few miles into the country, forced him to write a \$5000 ransom note to his wife, then took him out into the brush and shot him, where his body lay eight days until upon arrest and confession of his kidnaper it was revealed to officers.

Dr. Davis was born in 1870 on a farm three miles east of Willow Springs. He attended the public school in Willow Springs and the Mountain Grove High School. He taught school for several years before he was graduated from the Barnes Medical College, St. Louis, in 1903. He practiced for three years in Mountain View before locating in his home town.

He was an active member of the Presbyterian church and of several lodges, including the Abou ben Adhem Shrine. He was an outstanding Democratic leader in his community and for years was committeeman from his township and at his death was chairman of the committee. He was twice mayor of Willow Springs, twice president of the Chamber of Commerce, was for twenty-seven years a member of the school board and for twenty years its president and for several years was a director of the Bank of Willow Springs. He was twice president and twice secretary of the Howell-Oregon-Texas County Medical Society, was president of the Southwest Missouri Medical Society for one term, was one of the organizers and the first president of the South Central Counties Medical Society and was again its president at the time of his death.

The South Central Counties Medical Society passed the following resolution:

WHEREAS, In the tragic and untimely death of our friend and fellow worker, Dr. J. C. B. Davis, Willow Springs, we are reminded of the dangers and uncertainties of life as faced by all members of the medical profession in the daily routine of their work.

WHEREAS, In recognition of the long and untiring services of Dr. Davis in the field of public and civic work, in the field of medicine and in his work for advancement of our profession in this District, the South Central Counties Medical Society at its meeting in Willow Springs on February 18, 1937, wishes to express its sense of personal loss in the death of Dr. Davis and its appreciation of his services as a member and officer of our Society.

WHEREAS, We remember with pride the long years of service Dr. Davis has given to organized medicine in this District and that he has been identified with constructive organization and a high standard of professional ethics. At the time of his death he was president of this Society and one of its most influential members. Therefore be it

Resolved, That this expression of appreciation and sympathy be sent to the family of Dr. Davis at Willow Springs and a copy to the public press and that it be spread upon the minutes of this meeting.

A. H. THORNBURG, M.D.
J. A. FUSON, M.D.
R. M. NORMAN, M.D.

Dr. Davis is survived by his widow and six children and stepchildren, including Dr. H. M. Kendig, Sikeston, and by one brother and two sisters and a host of friends and patients who mourn his untimely passing while trying to fulfill his natural impulse to relieve his suffering fellowman.

A. C. AMES, M.D.

Books for Leisure Moments

When a group of eminent physicians combine to deliver a series of addresses to the laity on the history and accomplishments of medicine the result is bound to be interesting and instructive, at least from the interpretative point of view. "Medicine and Mankind" (D. Appleton-Century Co., New York) is a collection of seven lectures delivered at the New York Academy of Medicine last year. The introduction to the volume by Dr. Eugene H. Pool, President of the New York Academy of Medicine, deploras the quasi-secrecy so often characteristic of the relationship existing between physician and patient. He quotes with approval and illustration of the purpose of the Academy the words of Sir Richard Gregory: ". . . It is desirable to cultivate in the mind of the public an understanding of the purposes for which men devote their lives to scientific experiment and inquiry. Too little attention is given to this aspect of the quest for knowledge and too much to the actual results achieved. . . ."

The most persistent thought in the mind of the reviewer was how well some authors succeeded in enlivening the story of medicine, how dryly some of them presented their contribution. The bare recital of accomplishment, the repetitious succession of names and places, the unemotional exposition of the tremendous forces which have vitalized medicine, these are likely to elicit little response from a fact-burdened public. On the other hand, a contribution such as that of Haggard who devotes himself to the period of history denoted by the reign of the Grand Monarch, Louis XIV, cannot fail to maintain the interest of both listener and reader. It is this vitalization of medicine that we must seek. By relating the often inspiring but unexciting investigations of the laboratory to the pulsating current of life, by presenting in the layman's medium the accomplishments of the profession, we hope to evoke a real appreciation for the abilities of the physician. Thus, the story of vaccination takes on new interest when Haggard tells us that the young king lived amidst humiliation, that he was forced by his unscrupulous tutor to live in poverty. We are quite willing, then, to hear that much of medicine was in the hands of the barber surgeons. Because Haggard tells us that Louis was taken ill at five o'clock on a particular Monday afternoon we are willing to hear of the deplorable condition of the palace plumbing. We are able to

understand the futility of bleeding because at the same time that he tells us that Vaultier bled the monarch, Haggard informs us that Harvey had proved the circulation of the blood twenty years before. And it becomes easy to understand what vaccination means to the world when Haggard says that it was not until six years after Louis' death in 1715 that it was first brought into England by Lady Montague. The discoveries that characterize the advance of medicine are made vital by intimately relating them to the people who lived at the time, by the manner in which their effect upon human destiny is portrayed.

In an intensely personal account Dr. Harlow Brooks brings new significance to the wisdom of the primitive Indian medicine man. He describes his own visits with them, his talks with them. He tells us that they use roots and barks containing the same therapeutic agents prescribed by the white medicine man who inhabits the city. He succeeds admirably in evoking a feeling of admiration for the skill and sound knowledge of these savages. Brook's handling of the subject is in decided contrast to a rather bare account of the vitamins or to an involved, overly erudite discussion of death, parts of the same symposium. To the physician who seeks to spread knowledge of medicine and who would evolve his own personal method of presentation and to the patient who seeks pleasure and information, the volume may be heartily recommended. B. Y. G.

The career of Robert Brookings, who was so closely allied with Washington University in St. Louis in its early days, is told by Hermann Hagedorn in "Brookings, A Biography" (The Macmillan Company, New York).

Robert Brookings started his career in St. Louis at the age of 17 as receiving clerk for Cupples & Company at \$25.00 a month. Four years later when he was considering a proposal to start business for himself Cupples accepted him as a partner. In twenty-seven years Brookings made his millions and at the age of 44, retiring from business, devoted himself to efforts to supply the conditions needed "to train young men and women for leadership." Washington University at that time "was moribund, . . . sunk to less than a hundred students . . . Lacking leadership, the trustees drifted, conscious finally that they were not adequate even to keeping the institution afloat." Brookings "taught them to give themselves with their gifts, and gave life new meaning for them . . . Nine years after Brookings had taken command . . . the University . . . began its new life on its new site; . . . it had the complete plant and equipment of a modern university."

Next he turned his attention to the medical school. "The cause possessed him as not even the University had done." Brookings' project was characterized by Pritchett as "the greatest movement for civilization which could be inaugurated in St. Louis or the Southwest . . . The Medical Center was completed and in full action; like the University it needed his wisdom now rather than his creative power; and he was not satisfied to settle down as a sage." The war gave his creative spirit a temporary outlet. It took him to Washington as a member of the War Industries Board and Chairman of the Price Fixing Committee. The contribution of this organization "was . . . not of one man or two men and their helpers, but on an unprecedented scale of such a cooperative effort as in St. Louis had built Washington University and the Medical Center . . ."

"In the confused economic situation created by the war and bedevilled beyond anticipation by the peace, Brookings was agitated by the sense that neither he

nor anybody else on either side of the water seemed able to find firm ground of ascertained fact on which to stand." He saw that "what were needed were impartial studies of these basic problems . . . detached alike from personal prejudices and from any obligation to score points in the name of patriotism." The result was the Brookings Institute. And so, starting his career "as an exultant go-getter in the heyday of go-getting, he ended it sixty-five years later as a social philosopher, free of the prepossessions of his class and time. . . ."

The book gives in an interesting style an unvarnished account of a merchant who developed an urge to devote himself and his fortune to the service of the public. To the readers of *THE JOURNAL* it should have a special appeal through its local flavor and its concern with local problems of medical education. J. E.

The publication of a motley collection of speeches, addresses, and idle thoughts affords a welcome diversion to the author, a fund of information to the reader, and a troublesome duty to the reviewer. Yet when the author has played a prominent part in the development of medical knowledge, when he has been a leader in medical organizations, when he has served as examiner to hundreds of young men entering upon the practice of medicine, and when he combines with all of this vast experience a delightful, sometimes whimsical literary style, his book cannot fail to be of interest.

Dr. H. A. Royster, descendant of a long line of medical men, versed in the art as well as the science of medicine, has collected into one volume "Medical Morals and Manners" (University of North Carolina Press, Chapel Hill), some thirty miscellaneous addresses delivered before a variety of audiences. His purpose is to bring about "an increasing consciousness in the public mind as to the position of the physician in society." He believes that in this manner he further discharges his duty toward that public. He evidences wide acquaintance with the vagaries of the human mind, a patient resignation toward the difficulties of medicine and medical men.

Dr. Royster pays glowing tribute to three of the practitioners of North Carolina who lived in an earlier age, to their resourcefulness, their skill and their devotion to the welfare of the patient. Not the least of these deals with the intrepid courage of a backwoods physician who suffered a broken leg in a carriage accident en route to operate upon a farm woman. Despite his pain this surgeon insisted upon caring for his patient before allowing treatment for himself. The author gives over several pages to case reports culled from his father's note book, written more than sixty years ago. One of the more unusual of these case reports deals with an original method of stopping postpartum hemorrhage. The elder Royster rubbed the lining of the evacuated uterus with a piece of ice! Royster, *filis*, confronted some years later with a similar uncontrollable hemorrhage from the uterus successfully employed the same method. His professor, shocked at this violation of the aseptic canon insisted that in the future the ice should first be boiled! B. Y. G.

Edgar A. Kahn, Ann Arbor, Mich. (*Journal A. M. A.*, Jan. 9, 1937), outlines a procedure by which a chronic encapsulated brain abscess can be dealt with more easily. He has shown in his four cases that a brain abscess can migrate to the surface beneath a decompression, in the presence of increased intracranial pressure.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

- Perry County Medical Society, November 27, 1936.
Chariton County Medical Society, December 1, 1936.
Ste. Genevieve County Medical Society, December 15, 1936.
Dent County Medical Society, January 8, 1937.
Lincoln County Medical Society, February 16, 1937.
Benton County Medical Society, February 26, 1937.

MISSOURI STATE MEDICAL ASSOCIATION —80TH ANNUAL MEETING

Cape Girardeau, May 10, 11, 12, 1937

PRELIMINARY PROGRAM

Guests

- Hertzler, A. E., Halstead, Kansas: Conservative Operations on the Uterus.
Miller, Norman F., Ann Arbor, Michigan: Obstetrics.
Parker, Walter W., Cape Girardeau: A Pedagogue Looks at the Doctors.
Pearse, Herman E., Jr., Rochester, New York: The Care of Infections of the Neck and Their Complication, Mediastinitis.

Scientific Papers

- Allen, Duff S., St. Louis: Toxic Goiter in the Aged.
Asher, Graham, Kansas City: Improving the Care of the Cardiac Patient in the Small and Community Hospital.
Beisbarth, Carl, St. Louis: Errors of Refraction in Children.
Black, Donald R., Kansas City: Modern Treatment of Diabetes.
Bower, Richard L., Kansas City: Treatment of Facial Injuries.
Bradford, O. F., Columbia: The Function of the Child Welfare Program.
Caulk, John R., St. Louis: Gonorrhea in the Male.
Conley, Dudley S., Columbia: Address of President-Elect.
Fischel, Ellis, St. Louis: Early Recognition and Treatment of Cancer.
Fletcher, Paul F., St. Louis: The Function of the Maternal Welfare Program.
Furlow, Leonard T., St. Louis: The Importance of the Early Recognition of Neurosurgical Conditions.
Gay, L. P., St. Louis: Diagnosis and Treatment of Food Allergy.
Ginsberg, Morris, Kansas City: The Doctor's Heart.
Hildreth, L. Rommel, St. Louis: Retinal Detachment; Its Recognition and Treatment.
Hoffmann, R. Lee, Kansas City: Presentation of Complicating Urological Diagnoses.
Hunt, Paul F., Kansas City: Diagnosis and Treatment of Cholelithiasis and Extraductal Stones.

Jones, J. Laurence, Kansas City: Reduction of Femoral Neck Fractures Using Positive Radiographic Control. (Colored motion picture.)

Kirchner, W. C. G., St. Louis: Acute Diverticulitis of the Sigmoid.

Klemme, Roland M., St. Louis: Accurate Differential Section for the Treatment of Trigeminal Neuralgia.

Knight, John S., Kansas City: Diagnosis and Treatment of Diseases of the Esophagus.

MacBryde, Cyril M., St. Louis: Borderline and Atypical Hyperthyroidism.

McCaughan, John M., St. Louis: Prolonged Stimulation of Autonomic Nerves; Immediate and Remote Effects on the Bladder, Rectum and Colon.

McCutchen, L. G., St. Louis: Treatment of New Growths With Roentgen Ray Therapy Using the Contact Method.

Miller, E. A., and Paul, T. M., St. Joseph: Etiology of Primary Glaucoma and Its Physiologic Treatment.

Miller, E. Lee, Kansas City: Appendicitis.

Moore, Neil S., and Tapper, S. M., St. Louis: Chronic Prostate, What the Average Practitioner Should Know About It.

Newell, Quitman U., St. Louis: Gonorrhea in the Female.

Rinkel, Herbert J., Kansas City: Respiratory Allergy; Its Diagnosis and Treatment.

Robinson, G. Wilse, Jr., Kansas City: The Addiction of Patients to Various Barbituric Acid Derivatives.

Roble, Melvin A., St. Louis: Vaginitis and Cervicitis.

Scott, Wendell G., and Moore, Sherwood, St. Louis: Roentgen Kymography: A New Aid in the Diagnosis of Heart Disease.

Smith, Clinton K., Kansas City: A Revised Conception of Early Prostatic Hypertrophy.

Vohs, Carl F., St. Louis: Medical Economics.

Woolsey, Ross A., St. Louis: Address of the President.

BARRY COUNTY MEDICAL SOCIETY

The Barry County Medical Society met January 26 at the office of Dr. W. M. West, Monett, for the first work of the year.

The following officers were elected: President, Dr. S. W. Chandler, Cassville; vice president, Dr. J. M. Russell, Monett; secretary, Dr. W. M. West, Monett; delegate, Dr. L. H. Ferguson, Monett; alternate, Dr. W. M. West, Monett.

The Society voted Dr. J. M. Russell, Monett, and Dr. S. W. Chandler, Cassville, honor members.

The Society voted to assist in sponsoring a meeting of the 27th, 28th and 31st Councilor Districts to be held in Springfield on February 26.

W. M. WEST, M.D., Secretary.

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society was called to order at the Missouri Methodist Hospital by the president, Dr. Charles Greenburg, at 8 p. m., February 3.

The secretary read the proposed Senate Bill No. 3. It was moved by Dr. J. H. Ryan, seconded by Dr. Albert Muench, that the bill be read and discussed section by section. Following this reading and discussion it was moved by Dr. Emmett Cook, seconded by Dr. T. L. Howden, that the president instruct the committee on state medicine to draft a resolution in opposition to the bill and that a copy be sent to the Senator and Representatives and that a telegram be sent immedi-

ately to them appraising them of the attitude of the Society in opposition to the bill and urging them to do all in their power to defeat it. The motion passed.

The Society was entertained by two interesting scientific moving pictures, "Phrenicectomy and Phrenic Crushings" and "Pulmonary Lobectomy." Dr. Gregg Thompson furnished and ran the projector and added greatly to the interest of the picture by timely and pertinent remarks as he was showing the films. The pictures were discussed by Dr. J. H. Ryan.

O. EARL WHITSELL, M. D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society met at the Colonial Tavern, Cape Girardeau, February 8 at 8 p. m. with the following members present: Drs. B. W. Hays, presiding, D. I. L. Seabaugh and A. M. Estes, Jackson; C. A. W. Zimmermann, W. L. Yount, J. H. Cochran, P. B. Nussbaum, R. A. Ritter, G. J. Tygett, C. T. Herbert, D. B. Elrod, F. W. Hall, Joseph Russell, D. H. Hope and M. H. Shelby, Cape Girardeau.

It was moved by Dr. Cochran and seconded by Dr. Zimmermann that the secretary be empowered to wire the Public Health Committee of the Senate that the Society opposes Senate Bill No. 3 in its present form; also that he be further empowered to write the district Senator and Representatives urging opposition to this bill giving the reasons for opposition. This motion carried without dissension. The consensus of opinion was that this bill smacked of state medicine; that it would impair small hospitals in smaller communities by taking away patients and their families and would be controlled a great deal by politics; that Columbia was not the proper place for such an institution; that the treatment for indigent cancer cases could be carried on more effectively by improving the unit now functioning at Fulton.

It was moved by Dr. Nussbaum and seconded by Dr. Elrod that the Society approve the resolution from the Perry County Medical Society, to-wit, to stop the broadcasting from local stations of patients entering and leaving the hospitals.

The Board of Censors reported favorably on the application of Dr. Joseph Russell and upon ballot he was elected unanimously.

The auditing committee reported the books of Dr. Hays in perfect order.

M. H. SHELBY, M.D., Secretary.

COOPER COUNTY MEDICAL SOCIETY

The Cooper County Medical Society met January 21 at St. Joseph's Hospital, Boonville. The meeting was called to order by the president, Dr. W. H. Ziegler, Boonville.

The following officers were elected for 1937: President, Dr. T. C. Beckett, Boonville; vice president, Dr. G. W. Winn, Boonville; secretary-treasurer, Dr. J. C. Tinch, Boonville; delegate, Dr. C. H. Van Ravenswaay, Boonville; committee on public policy, Dr. Alex Van Ravenswaay, Boonville.

Members present at the meeting were Drs. W. E. Stone, T. C. Beckett, Alex Van Ravenswaay and W. H. Ziegler, Boonville.

J. C. TINCER, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

Following a dinner in the Gold Room of the Connor Hotel, the Jasper County Medical Society was called to order by the president, Dr. Paul Walker, Joplin, on February 9.

Dr. W. M. Kinney, Joplin, chairman of the radio committee, reported that five members had paid their voluntary subscriptions.

Following a reading of the correspondence relative to Senate Bill No. 3, Dr. R. M. James, chairman of the legislative committee, discussed the bill and moved that the action of the Council of the State Association be endorsed. After discussion by Drs. R. M. James, Paul Walker, R. L. Neff, J. W. Barson, H. D. McGaughey, S. A. Grantham, Jr., and W. W. Hurst, it was duly moved and seconded that the question be laid on the table. The motion carried.

An announcement of the meeting of the Muskogee Academy of Medicine was read.

Dr. Paul F. Fletcher, St. Louis, representing the Postgraduate Committee of the State Association, was introduced and delivered an enlightening and interesting paper on "Ectopic Pregnancy; Diagnosis and Treatment." Dr. M. DeArman, Miami, Oklahoma, was called upon for a discussion and he presented Dr. Wiley Chestnut, Miami, who briefly discussed the paper. Members of the Society also entered the discussion.

W. H. BLACK, M.D., Secretary.

PETTIS COUNTY MEDICAL SOCIETY

The Pettis County Medical Society met at the Bothwell Memorial Hospital, Sedalia, on March 1, for a dinner meeting.

Dr. Paul F. Fletcher, St. Louis, was a guest of the Society and spoke on "Chronic Pelvic Diseases."

JOHN B. CARLISLE, M.D., Secretary.

RANDOLPH-MONROE COUNTY MEDICAL SOCIETY

The Randolph-Monroe County Medical Society met January 12, at 8 p. m. at the Public Library Building, Moberly. The meeting was called to order by the vice president, Dr. M. P. Hunter, Moberly.

Dr. R. A. Woods, Clark, was unanimously accepted into the Society.

Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary of the State Association, spoke on "Medicine in the State of Missouri in 1937." A general discussion followed.

The following guests and members were present: Mr. E. H. Bartelsmeyer, St. Louis; Drs. C. C. Smith, L. O. Nickell, R. D. Streeter, M. P. Hunter, T. S. Fleming, L. E. Huber, F. L. McCormick, O. K. Megee and M. E. Kaiser, Moberly.

A lunch was served following the meeting.

Meeting of February 9

The Society met February 9 in the Public Library Building, Moberly.

Dr. O. F. Bradford, Columbia, spoke on "Infantile Paralysis."

Members and guests present were: Drs. G. W. Hawkins and F. L. Harms, Salisbury; O. F. Bradford, Columbia; J. F. Flynt and M. C. McMurry, Paris; J. P. Allen, Cairo; O. K. Megee, L. O. Nickell, C. C. Smith, M. P. Hunter, T. S. Fleming, L. E. Huber, R. D. Streeter and M. E. Kaiser, Moberly.

M. E. KAISER, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society was called to order on February 10 at 2:30 p. m. with seventeen members present.

Dr. F. A. Jostes, St. Louis, read a paper on "Back-

ache" illustrating with patients and roentgen ray pictures. The paper was discussed by Drs. M. T. Morrison and John D. Hayward.

Dr. Duff S. Allen, St. Louis, read a paper on "The Value of Oxygen Therapy in Postoperative Conditions." The paper was discussed by Dr. John D. Hayward.

The secretary reported on correspondence relating to Senate Bill No. 3 from which it appeared that while the Association officially had supported the bill the proposal had met with severe resistance in various local units including the St. Louis Medical Society. The Society unanimously passed a resolution similar to the one passed by the Marion-Ralls County Medical Society and the secretary was instructed to dispatch night letters to the Governor, President of the Senate, Speaker of the House and the Committee on Public Health.

Dr. T. R. Meyer reported that he was attempting to raise the hospital fee of indigent patients from \$15 to \$18.

Dr. C. P. Dyer read the amendment and resolution as published in *The Bulletin*. Dr. John D. Hayward moved its adoption which passed.

By motion Dr. Curtis H. Lohr was congratulated on his appointment to the County Hospital and was informed that the members of the St. Louis County Medical Society would cooperate with him.

Dr. John D. Hayward moved reconsideration of the motion passed at the previous meeting regarding corporation practice. Dr. C. P. Dyer moved that the Society go on record as supporting the medico-legal committee of the St. Louis Medical Society and that the Society as such donate \$25 and that the individual members support it in as far as possible. The motion was seconded and carried.

Meeting of February 24

The Society was called to order February 24 at 8:35 p. m. with sixteen members present.

Dr. L. G. McCutcheon, St. Louis, read a paper on "The Treatment of New Growths With the Roentgen Ray Tube in Direct Contact With the Skin." The paper was discussed by Drs. John D. Hayward and E. R. Brown.

Dr. Simon A. Levey, St. Louis, talked on "Roentgen Ray Diagnosis of Acute Intestinal Obstruction." Discussion was by Drs. H. J. Stein, John D. Hayward and T. R. Usher.

Dr. J. R. Compton, associate editor of the *Bulletin*, asked members to be more ready with news items.

Dr. Andy Hall, Jr., St. Louis, spoke on "The Medical-Dental Service Bureau," making an appeal to the members for support. Discussions by Drs. H. J. Stein, R. B. Denny, J. D. Hayward and J. R. Compton were favorable and resulted in several pledges to the Bureau.

JULIUS JENSEN, M.D., Secretary.

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met at the Horton Hotel, Willow Springs, February 18, with the following members and visitors present: Drs. F. N. Saville, Willow Springs; A. H. Thornburgh, P. D. Gum and E. C. Bohrer, West Plains; R. A. Ryan, A. C. Ames, H. G. Frame and J. M. Hubbard, Mountain Grove; J. A. Fuson, Mansfield; R. M. Norman, Ava; Paul F. Cole and Ronald F. Elkins, Springfield, and O. F. Bradford, Columbia.

The program consisted of dinner at noon followed by a public meeting which was attended by seventeen people who listened attentively to Dr. O. F. Bradford, Columbia, explain what is known about immunization for diphtheria and other children's diseases and Dr.

Ronald F. Elkins, Springfield, tell what everyone should know about cancer. Literature was given out at the close of the meeting.

At the scientific session, Dr. Bradford further considered immunization for various children's diseases, explaining that, if properly given, immunization for diphtheria may be almost 100 per cent perfect for life although it does not often reach this figure because of the way in which it is administered. For whooping cough immunization may be of considerable benefit but for only a short time; for infantile paralysis no effective prevention is known; for other diseases there are varying degrees of results to be expected.

Dr. Ronald F. Elkins, Springfield, spoke on "Cancer of the Rectum" emphasizing the importance of making a thorough examination of all rectal troubles and not calling them all hemorrhoids and prescribing for them without an examination.

Dr. Paul F. Cole, Springfield, showed a number of slides of what may be expected of radium and roentgen ray in the treatment of cancer and explained when surgery would be necessary. He also called attention to some of the earlier signs of cancer.

It was voted to accept dues for 1936 and 1937 and remit the dues for years farther back for former members who wished to be reinstated, and Dr. F. M. Saville, Willow Springs, took advantage of the offer and was reinstated.

The following committee was appointed to draft a resolution on the death of Dr. J. C. B. Davis, Willow Springs: Drs. A. H. Thornburgh, J. A. Fuson and R. M. Morman.

It was voted to oppose the bill now before the legislature to establish a free hospital for the indigent at Columbia, and to ask the representatives to work and vote to that end, the reason being that the Society favors doing this work in the several counties rather than at one central hospital.

It was voted to hold the next meeting at Mountain Grove, April 2, and a vote of thanks and appreciation was given to the speakers.

A. C. AMES, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

15th Annual Meeting, Atlantic City, 1937

President, Mrs. Robert Fitzgerald, Wauwatosa, Wisconsin.

President-Elect, Mrs. Augusta Kech, Altoona, Pennsylvania.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

13th Annual Meeting, Cape Girardeau, May 11-12, 1937

President, Mrs. Walter Kirchner, St. Louis.

President-Elect, Mrs. Charles Werner, St. Joseph.

Mrs. David S. Long, Harrisonville, vice president of the Woman's Auxiliary to the American Medical Association, has been chosen commander for Missouri of the Woman's Field Army of the American Society for the Control of Cancer. Enlistment week was March

21 to 27. The slogan is "Fight Cancer With Knowledge."

Mrs. C. S. Capell, Kansas City, is commander of the Woman's Army of the second district and held a meeting March 1 in the Auditorium of Kansas City University.

The Jackson County Auxiliary held a valentine luncheon and quilt display at its February meeting. Mrs. Herbert S. Valentine, Kansas City, was chairman of the program.

The February meeting of the Clay County Auxiliary was held in Excelsior Springs. It was preceded by a dinner with the Clay County Medical Society at which the dentists of the county, and their wives were guests.

Mrs. Frank L. Davis, St. Louis, state corresponding secretary, is preparing a year-book for the Auxiliary which will soon be completed. It has been five years since the Auxiliary issued a year-book and the membership has increased greatly in this time.

A "Health Day" program with Mrs. Robert Mueller as chairman was featured at the regular monthly meeting of the Woman's Auxiliary to the St. Louis Medical Society on February 9. After luncheon Dr. Harriet Cory, St. Louis, spoke on "High Lights of Social Hygiene."

Mrs. Joseph M. Trigg, St. Louis, has been elected second vice president of the Auxiliary to the Southern Medical Association.

The first question on a questionnaire filled in by the auxiliary presidents was "Has your county medical society asked anything of the Auxiliary this year?" Mrs. Joseph Trigg, president of the Auxiliary to the St. Louis Medical Society, listed the following requests of that Society: 1st, That we assist them in entertaining the Southern Medical Association and Auxiliary last November; 2nd, to help them acquaint the public with the Medical Security Administration; 3rd, to cooperate with their smoke committee in their effort to eliminate smoke from the City of St. Louis; 4th, to serve a buffet supper to the Medico-Military Corps at the Clinical Conference April 30; 5th, to assist them in entertaining the American Psychiatric Association and to serve a luncheon for the wives of these men at the medical building on May 6, and 6th, to be hostesses the first day (May 4) of the meeting of the International Society for Crippled Children.

The Clay County Auxiliary has suffered a severe loss in the death of Mrs. J. H. Howell, Excelsior Springs, its secretary-treasurer. Mrs. Howell died February 26. She was an enthusiastic and loyal member of the Auxiliary.

Cape Girardeau Session, May 11, 12, 1937

Woman's Auxiliary Program

Tuesday, May 11

- 9:00 a. m. Registration.
- 10:00 a. m. Meeting of Executive Board.
- 12:30 p. m. Luncheon followed by drive and tea.
- 8:00 p. m. Informal reception and program.

Wednesday, May 12

- 8:30 a. m. Registration.
- 9:00 a. m. General Meeting.
- 1:00 p. m. Luncheon.
- 3:00 p. m. Post-convention Board Meeting.
- 7:00 p. m. Banquet (Bring your husband).

CORRESPONDENCE

THE STATE GENERAL HOSPITAL AND THE CANCER HOSPITAL

To the Editor:

Nothing in recent years has aroused the profession of Missouri as has the legislation proposed by Governor Stark and some of his advisers to provide additional free general beds and a 75-bed cancer hospital.

Coming from an almost cloudless sky the proposal for a 300-bed hospital at or near Columbia had the effect of a hailstorm; it was unexpected and it woke us up. We used the word "almost" advisedly; the cloud was the innocent sounding report of the Public Policy Committee at the State Council meeting held in Columbia early last November. When the report had been made by Dr. Aleo near the end of a full morning, the order of the day had become one of acceptance and approval. To this report only one "No" vote was registered when the motion to accept was put by Dr. McComas, Chairman of the Council.

The author of the "No" vote carried his impression of events back to his district, the Thirteenth, and upon presenting his report to the Council of Jackson County Medical Society was supported by a unanimous vote of approval.

In the first 1937 issue of the *Journal* of the Jackson County Medical Society which appeared on the desks of the members on January 2, a warning of an impending new building project was sounded by one of the editors, and the Society was advised to instruct its delegates to the Cape Girardeau meeting of the State Association to combat this move for a new free hospital. A month later the Jackson County Medical Society voted unanimously to oppose the erection of a new 300-bed hospital with a wing for cancer patients, as provided in Senate Bill No. 3 introduced by Senator Kinney, St. Louis, at Governor Stark's request early in the present session of the state legislature. In the short space of a month the Governor's inaugural had outlined his ideas upon cancer control, the bill had been introduced and had been ordered printed, the 1937 Council of Jackson County Medical Society had voted to oppose any further new building at or near Columbia (as had the 1936 Council); Marion-Ralls County Medical Society had circulated its comprehensive resolution of protest throughout the state, and the profession in general was awakened and alarmed.

The imminence of what most of us variously considered a further step toward state medicine, a useless expense to the taxpayers, an unjust competition on the part of the state with many small privately controlled hospitals, a means for the care at state expense of the large group of persons always able to gain admission to such institutions through political channels instead of indigency, an attempt to set up a four-year medical course in a town of 15,000 population when previous attempts had failed dismally and the present one bid fair to do likewise or to bankrupt the doctors and pauperize the people of the neighboring counties, and an obvious failure of efforts of recent years to establish cancer clinics at strategic points in the state, to-

gether with the roentgen ray, beds, radium and other equipment already provided or contracted for, these, we say, startled us into action.

In all the agitation for and against Senate Bill No. 3 and its substitute calling for a 75-bed cancer hospital, the assistance of the officers of the State Association was given without bias to those seeking it, despite the fact that the Council through its inadvertent action of last November had placed them in an embarrassing position in the interregnum between conventions. Resolutions of protest against the pending legislation were passed by county societies in all parts of the state, notably Marion-Ralls, St. Louis County, St. Louis City, Lafayette, Jackson, Buchanan, Pettis and Howell-Oregon-Texas County societies. Letters and telephonic communications attested the opposition of the vast majority of the members of the organized profession in Cole, Bates, Clay, Platte, Clinton, Johnson, Saline, Lewis and a number of other counties.

Through all of the hurried efforts of the proponents to secure passage of the legislation and of the opponents to obstruct, Governor Stark has shown a willingness to hear all sides, has invited men to come to his office for interviews, for he has, after all, none but the best motives in his espousal of a cause such as better care for the cancer patient and a full medical course for Missouri boys and girls qualified for such training. Senator Brogan and his committee have been most considerate; likewise Senator Kinney who introduced the bill.

While there has been a tendency on the part of one or two county societies to compromise by acquiescing in the establishment of a cancer hospital and while at least one county society has resolved to leave the choice of location and the advisability of establishing such a cancer hospital to the Committee on Cancer of the State Association there is no great support for this viewpoint throughout the state. Many feel that a mandate from one or two component units of the State Association to the Committee on Cancer should not be accepted as representative opinion by that Committee. Rather it is felt that such a burden of responsibility should come from the profession as a whole as expressed in a convention of the State Medical Association.

In the situation as it now exists, we make the plea for full, open discussion of the advisability of building a cancer hospital, of the desirability of teaching more undergraduate medicine in Missouri, and of the need in central Missouri of a large general hospital for indigents. We plead for a full explanation of the needs of Missouri, by the Cancer Committee, and by the Public Health Committee, before the House of Delegates at the State Meeting at Cape Girardeau in May.

E. P. HELLER, M.D., Kansas City, Mo.

BOOK REVIEWS

APPLIED DIETETICS: For Adults and Children in Health and Disease. By Sanford Blum, A.B., M.S., M.D., head of Department of Pediatrics, and Director of Research Laboratory, San Francisco Polyclinic and Post Graduate School. Philadelphia: F. A. Davis Company. 1936. Price \$4.75.

There are so many surprising statements in this book that it will be difficult to review it adequately. For example, it is advised, even at this late date, that the diabetic patient be starved for three days and allowed only

two to four ounces of black coffee without sugar every three hours from 8 a. m. to 8 p. m. But the author fails to make it clear which patient should be given two and which patient should be given four ounces of the beverage. Also vitamin is consistently misspelled "vitamine."

B. Y. G.

A TEXTBOOK OF MEDICINE. By Charles Phillips Emmerson, M.D., Research Professor of Medicine, Indiana University, Formerly Associate in Medicine and Medical Resident, Johns Hopkins University and Hospital; Assistant Professor of Medicine, Cornell University (Ithaca); Medical Superintendent, Clifton Springs Sanitarium, New York; Professor of Medicine and Dean, Indiana University School of Medicine, Indianapolis, Indiana. Philadelphia: J. B. Lippincott Company. 1936.

Appointment as Research Professor of Medicine of Indiana University afforded Dr. Emmerson the leisure and the opportunity to prepare this textbook, written from the point of view of clinical medicine and the practicing physician. The 1300 page volume, of which the exhaustive index occupies eighty-five pages, is divided into twenty parts, each dealing with those diseases arising through a common agency, whether it be infective, parasitic, the result of allergy or deficiency, or metabolic disturbance, diseases arising in the various anatomical and physiological systems of the body, or disease arising in the disruption of the governing emotions. The author insists that sickness cannot be understood only in terms of bacteriology, pathology, and chemistry; the motivating emotional factors must be discovered and the patient reeducated before some diseases can be eradicated.

The author has succeeded admirably in compiling a trustworthy, readable textbook. The printer has added to the usefulness of the volume by an excellent choice of type size, and the exhibition of boldface type for paragraph headings and special emphasis. One might occasionally wish for a more exhaustive description of specific therapy, more particularly with reference to the dosage of recommended medicines. But there can be no question that this text will serve as a valuable addition to the library of practitioner or student.

B. Y. G.

RESEARCH IN DEMENTIA PRECOX (Past Attainments, Present Trends and Future Possibilities). By Nolan D. C. Lewis, M.D., Professor of Neurology, Columbia University, Associate Medical Director, Neurological Institute of New York, Field Representative and Coordinator of Research in Dementia Precox. Founded by the Northern Masonic Jurisdiction of the Scottish Rite. New York, 50 West 50th Street: Research in Dementia Precox. 1936. Price \$1.50.

The preface to this book indicates an attempt to review psychiatric research and render suggestions relative to dementia precox. We find that this is essentially true when we read the book. However, the etiology and diagnostic criteria are sufficiently well covered to be of value to either the general practitioner or those interested in neuropsychiatry. But the work should attract especially medical men and research workers interested in the various schizoid problems. The author calls attention to the frequency of the disease and the general public lethargy toward it.

The book is well prepared, splendidly arranged and printed so that reading is easy. At the end of each chapter is an exhaustive bibliography arranged chronologically. The author considers the four types of de-

mentia precox; namely, simple dementia precox, including the formes frustes, hebephreniac, catatonic and paranoid, but these are not unduly stressed. In fact attention is called to the frequent overlapping amongst them.

Discussing the etiology, there is given nothing conclusive and much has been suggested in the way of research. Spielmeier's conservative views on the pathology are reported. The Berger waves, endocrines, hormones and basal metabolism are discussed. "Alterations in structure and structure functions" might be a little confusing. Caution is voiced when he handles treatment. Insulin, psychotherapy, psychoanalysis, chemical and the "problem child" are given due consideration. A. L. S.

UROLOGICAL ROENTGENOLOGY. A Manual for Students and Practitioners. By Miley B. Wesson, M.D., Ex-President American Urological Association, and Howard E. Ruggles, M.D., Roentgenologist to University of California Hospital, St. Luke's Hospital, and Clinical Professor of Roentgenology, University of California Medical School. Illustrated with 227 engravings. Philadelphia: Lea & Febiger. 1936. Price \$5.00.

The authors, as indicated in the preface, have attempted to prepare a manual of "Urological Roentgenology" for both students and practitioners and in the reviewer's opinion have succeeded admirably. The brief condensed book is especially recommended for its concise correlation of etiology, pathology and roentgen findings. The outlines and bibliographies with each chapter are unusually good, and the common sources of error in diagnosis have not been neglected.

In many ways this book recalls that popular text on general roentgenology, roentgen interpretation, in which Dr. Ruggles collaborated with Dr. George W. Holmes; we believe this present volume deserves equal recognition. C. E. V.

DISEASE OF INFANCY AND CHILDHOOD. By Wilfrid Sheldon, M.D. (Lond.), F.R.C.P. (Lond.), Physician for Diseases of Children, King's College Hospital; Physician to Out-Patients, The Hospital for Sick Children, Great Ormond Street; Consulting Paediatrician to London County Council. With a foreword by G. F. Still, M.A., M.D., LL.D., F.R.C.P., Emeritus Professor of Children's Diseases, King's College, London. With 137 illustrations. Philadelphia: P. Blakiston's Son & Co., Inc. 1936. Price \$7.00.

The author states that the contents represent the clinical teaching and lectures on pediatrics given in the Children's Department, and in the postgraduate courses at King's College Hospital. This is a comprehensive textbook for students and practitioners of medicine. Naturally, it bears the stamp of the common English practices and therein differs considerably from our American customs. The rules about infant feeding are eminently practical but the commercial brands of dry and evaporated milk sound strange to us. The chapter on artificial feeding seems rather brief, chiefly due to the fact that subjects such as caloric requirements, metabolic needs, etc., are not discussed. The section on the physical growth of infants and children is short but to the point. The mental and psychical development receives no consideration.

We were surprised that the subject of difficult teething should receive so much attention. The subject of vomiting is given only one half page and no symptomatic treatment is suggested; while the rare conditions, aerophagy and rumination, receive consid-

erable discussion. Marasmus, which has become a relatively rare nutritional disorder here, is thoroughly described. While the author lays some stress on water loss in diarrheal diseases, the subject of gastroenteric intoxication with its characteristic syndrome has been omitted. We believe that sweetened barley water is safer than whey in acute diarrheas. The articles on rickets and scurvy are very good. We question that a "baked" potato has an antiscorbutic value.

The subject of "cold" as an infectious disease is not mentioned. The author adheres to the pathologico-anatomical nomenclature (rhinitis, bronchitis, etc.); still, he mentions that a tracheitis and bronchitis usually follow from an extension of the disease from the nose and throat.

The chapter on rheumatism and rheumatic heart disease must be regarded as one of the best in the book. It seems to us that the infectious fevers deserve more space than this book allows. Roseola infantum is not described. It is true, some of the infectious diseases are described under other headings throughout the book. Neither tetanus nor erysipelas, except as a disease of the new-born, receives consideration.

However, as a whole this textbook is an up-to-date concise treatise on pediatrics and the practitioner or medical student will make no mistake in using it as a guide. J. Z.

A TEXTBOOK OF BACTERIOLOGY. By Thurman B. Rice, A.M., M.D., Professor of Bacteriology and Public Health at the Indiana University School of Medicine. Illustrated. Philadelphia and London: W. B. Saunders Company. 1935. Price \$5.00.

Dr. Rice's book is a beautifully written treatise on the surface principles and facts of bacteriology. It would serve as introduction to bacteriology, or an easily read treatise on the subject to the busy practitioner who wished the essential points without non-essential controversial subjects.

I could not recommend the book as a student's textbook as bacteriology is not as simple as the book would indicate.

His last chapters are well thought out and covered and will give the casual student many good ideas concerning practical bacteriology.

I think this book covers the object for which it was written much better than any other book I have read. H. N. A.

TEXTBOOK OF GENERAL SURGERY. By Warren H. Cole, M.D., F. A. C. S., Professor of Surgery, University of Illinois College of Medicine; Formerly Associate Professor of Surgery, Washington University School of Medicine, St. Louis; and Robert Elman, M.D., Associate Professor of Surgery, Washington University School of Medicine, St. Louis. New York, London: D. Appleton-Century Company, Inc. 1936. Price \$10.00.

Whether he knows it or not, every book reviewer develops, consciously or subconsciously, a technic of his own. In my own instance, I regard the field of textbooks of surgery for students as a free field open for the exposition of those methods of teaching which the particular author or authors have found to be practical and profitable. On this basis, I require of such volumes only adequate fullness with appropriate conciseness, clarity of presentation, logical weighing and discussion of most problems, avoidance of academic flights, and insistent coordination of clinical facts with the underlying and basic principles of the so-called

academic sciences of anatomy, physiology, bacteriology and pathology.

Viewing this book from such an angle, I find it unequivocally satisfactory. An admirable foreword by Evarts Graham lends both tone and balance to an already well ordered treatise, which sets out to do the very things that I have mentioned to be essential to a worth while textbook.

The book is made up of twenty-six chapters which cover very adequately the entire field of general surgery and regional surgery, starting off with inflammation and repair, working through the various fundamental principles of surgical diagnosis, prognosis and treatment, and then, moving on to an excellent chapter devoted to surgical methods, treating such important topics as heat and cold, administration of fluids, transfusion, resuscitation, anesthesia, the use of the hollow needle and the preoperative and postoperative care. The chapter on Neoplasms and Cysts is admirably clear and unconfused by many of the details that have no place in the minds of students during their first contacts with clinical surgery.

Indeed, what attracts me to this book is that it seems to rest on the sound philosophical concept, on which rests the wisdom of teaching the young to walk before they attempt to learn to run. At strategic points in the text, one regularly finds bibliographic references, so that the exceptional student with that divine afflatus all too rare in students, namely, intellectual curiosity, may enlarge his field of knowledge.

An appendix devoted to history taking and physical examination plus extraordinarily well selected and clear illustrations, lend value to the book. M. G. S.

A TEXTBOOK OF PHARMACOLOGY AND THERAPEUTICS OR THE ACTION OF DRUGS IN HEALTH AND DISEASE. By Arthur R. Cushny, M.A., M.D., LL.D., F.R.S., Late Professor of Materia Medica and Pharmacology in the University of Edinburgh. Eleventh edition, thoroughly revised by C. W. Edmunds, A.B., M.D., and J. A. Gunn, M.A., M.D., D.Sc., F.R.C.P. Illustrated with 70 engravings. Philadelphia: Lea & Febiger. 1936. Price \$6.50.

In the eleventh edition of this well known book the plans of presentation of subject matter as outlined by the original author have been continued, so that this standard work appears again in familiar form, although some of the less important drugs have been reduced to small type. This is in line with the growing tendency in pharmacology to present only those drugs which are recognized as having a definite place in the practitioner's field. On the other hand this edition finds proper places for the newer drugs as recognized by the eleventh revision of the U. S. Pharmacopeia. Both students and the medical profession will find this new Cushny a ready and useable source of authoritative information in the fields of pharmacology and therapeutics. M. M. E.

SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES. By George R. Herrmann, M.D., Ph.D., Professor of Clinical Medicine, University of Texas, etc. With 88 text illustrations and three color plates. St. Louis: The C. V. Mosby Company. 1936. Price \$4.00.

This small book purports to be an indexed epitome of the principles and modern conceptions of cardiologic practice. It accomplishes its purpose in a satisfactory manner. Herrmann is thoroughly acquainted with the

clinical manifestations of disease of the heart and arteries and with the pathologic states and physiologic abnormalities that determine them. Himself an investigator in this realm, he has been long enough a teacher and recently enough a student to present the subject in a manner that appeals to the student and physician.

Much real information is crowded into the three hundred and eleven pages of text. Hermann's style has an elementary didacticism that has its advantages as well as its disadvantages. It avoids confusion in the mind of the reader and instills confidence. On the other hand it fails to call attention to the fact that there are many controversial issues whose solution is not yet accomplished.

The attempt to outline the management of the chronic cardiac invalid is about as successful as one could expect. The proper treatment of this subject, with attention to all the attendant circumstances, still challenges the authoritative expert. Some day this will be done in a satisfactory manner and will fill a real need.

The proof reading has been well done. To this reviewer, at least, the word *potatarium* was new and, indeed, the author defines it parenthetically. In one place interventricular appears for intraventricular.

To one who has neither the time nor the inclination to consult more comprehensive treatises, this synopsis can be recommended. It is, of course, sketchy but, as stated above, it does accomplish what the author set out to do. L. S.

SKIN DISEASES IN CHILDREN. By George M. MacKee, M.D., Professor of Clinical Dermatology and Syphilology, New York Post-Graduate Medical School, Columbia University, New York, and Anthony C. Cipollaro, M.D., Associate in Dermatology and Syphilology, New York Post-Graduate Medical School, Columbia University, New York. With 153 illustrations. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers. 1936. Price \$5.50.

This is one of the most satisfactory and substantial books that has come our way in a long time. It is well written, well balanced and well made. The illustrations, which are from original photographs, have been selected with wisdom and care, and are superb. I know of nothing finer. As the authors state in the preface, therapeutic success in dermatology is dependent upon diagnostic ability, knowledge of etiology and familiarity with therapeutic principles, plus conscientious effort.

Descriptions are necessarily brief, for the subject is wide and the space limited. But with illustrations of this sort, and the practical, commonsense methods of treatment appended, with this little volume for a guide, the intelligent practitioner can go a long way.

Their remarks on the conception of eczema as a disease entity are commendable. They agree with the late Walter Highman, with Jadassohn, Sulzberger and others that there is no difference between eczema of internal origin and eczema of external origin. In every instance there must be an internal factor of some sort that makes the skin susceptible, plus a local exciting factor. The underlying or predisposing element is sensitization or allergy. The legend "dermatitis" as a substitute for eczema, unless qualified by an adjective, is not satisfactory because dermatitis signifies simply an inflammation of the skin which of course is present in most dermatoses.

No better legend has been suggested, and until more is known relative to the identity of the numerous

cutaneous entities and particularly those that have in the past been known as eczema, the term will continue to serve a useful purpose.

The reviewer was surprised and pleased to learn that the intramuscular injection of one or two small doses of sulpharsphenamine not infrequently brings about spectacular cures in verrucae. This remedy has long been a favorite of mine. I had thought that verruca therapy by suggestion, as practiced by Bloch, Scholtz, Reqnault, Karrenberg, Ichok, Zurick, Memmesheimer, Eisenlobe, and others enjoyed a wider vogue at the clinic.

I heartily agree with the authors in their assertion that there is no satisfactory treatment for nevus flammeus (port-wine mark). Ultraviolet therapy, Grenz rays, radium and roentgen rays, all have their advocates, but I judge by results rather than by claims.

The general plan of treatment for congenital syphilis in infants and children under 3 years of age is that first suggested by the late Dr. Fordyce, and at present practiced by Dr. Isadore Rosen and other authorities. The treatment is begun with intramuscular injections of bismuth salicylate in sterile, refined peanut oil. A one half strength suspension is used (5 per cent instead of the usual 10 per cent). The dose is one minum for each year of age. Injections are given once weekly for twelve weeks. This is followed by eight weekly intramuscular injections of nearsphenamine, a Rosen needle being used. The dose is 0.1 gm. for an infant 3 weeks old, and weighing not less than six pounds.

This volume is one that can profitably be read and reread, by pediatricians, general medical men and dermatologists alike.

R. L. S., Sr.

NEW PLANS OF MEDICAL SERVICE. Examples of Organized Local Plans of Providing or Paying for Medical Services in the United States. Chicago, Illinois: The Julius Rosenwald Fund. 1936.

This booklet is a summary of several plans of medical service instituted throughout the United States in recent years. It describes about forty of the several hundred now in operation. In most instances complete details are lacking, however an excellent general idea of the entire phase of these new set-ups is obtained.

The plans are based on either voluntary or compulsory prepayment schemes. The vast majority do not give full medical or hospital coverage. Chronic diseases, venereal diseases and obstetrics are excluded. Most of these plans exclude treatment of tuberculosis, a most prevalent and devastating condition. They are, therefore, deficient both in service and facilities.

One exception worthy of note is the "Endicott-Johnson" plan. Here an industrial concern offers to its employees and their dependents a complete medical and hospital service at no cost to the employee. Its medical staff consists of about forty-five specialists on a full time basis. Employees have the right to select their physician from within this staff. If they wish to select their own physician they are privileged to do so at their expense. In this set-up there is some benefit to the industrial organization in that they have a healthy workers group and that the workers receive good medical care. It would be interesting to compare the salaries these workers receive in this industrial concern to those received by other workers in the same industry not having these medical services and facilities available. The writer questions the altruism of corporate bodies in our competitive system.

No mention is made of the "Spaulding Plan" instituted by Spaulding Bakeries, Inc., of Binghamton, New York, wherein the employee has absolute free choice

of physician and which after three years of experiment has proved entirely satisfactory.

Any medical practitioner reading this booklet will be fully rewarded for the time spent. It contains a world of valuable information of outside agencies such as the government, industry, charity, fraternal and trade organizations, etc., seeking a medical Utopia with the medical profession itself as an organization just standing by.

M. J. B.

HEART DISEASE AND TUBERCULOSIS. Efforts Including Methods of Diaphragmatic and Costal Respiration to Lessen Their Prevalence. By S. Adolphus Knopf, M.D. (New York University and Paris), New York. New York: The Livingston Press. 1936. Price \$1.25.

This brochure of about 108 pages gives a brief résumé of statistics based on the morbidity and mortality rates in heart disease and tuberculosis. As a prophylactic measure to lower the morbidity rate of these two serious maladies, the author advocates diaphragmatic respiration, which seems to be a "pet hobby" of his. While his reasons for advocating his theory of controlled diaphragmatic respiration appear plausible, yet on closer scrutiny they do not appear convincing to the experienced practitioner. In order to support his contention in reference to this method he evidently has sent questionnaires to many of the leading medical authorities throughout the country who, in turn, have replied by favorably commenting upon this procedure. Mere recommendations by authorities in reference to a certain method of treatment, while satisfactory to the proponent of that method, yet to the reader do not appear convincing unless substantiated by definite case histories or statistics showing results. The author goes into great detail in expounding this method with numerous illustrations and photographs of controlled diaphragmatic respiration. This may be a good form of gymnastic exercise, but it seems to me rather far-fetched to claim the results that this author does. To the writer, it seems that the author is "riding a hobby."

A. C. H.

PHYSICAL THERAPEUTIC METHODS IN OTOLARYNGOLOGY. By Abraham R. Hollender, M.D., F.A.C.S., Association in Laryngology, Rhinology and Otolaryngology, University of Illinois College of Medicine; Fellow of the American Academy of Ophthalmology and Otolaryngology. With 189 illustrations. St. Louis: The C. V. Mosby Co. 1937. Price \$5.00.

This is a comprehensive review and clinical evaluation of physical therapeutic methods indicated in the practice of otolaryngology. The first hundred and fifty pages are devoted to fundamentals of various physical therapeutic agents, including low voltage currents, diathermy, short wave diathermy, electrosurgery, phototherapy, ultra-violet radiation, roentgen ray and radium. The main body of the book considers the clinical problems encountered in everyday practice and the application of physical therapy to each specific condition.

Physical therapy has not been extensively employed in otolaryngology, probably entirely due to a lack of familiarity with the underlying principles and technic as applied to otolaryngology, and this volume published after extensive experience by the author in this field should do much toward familiarizing the otolaryngologist with physical therapeutic methods as applied to his work. The illustrations add much to its value.

S. S. B.

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DESTRUCTIVE LESIONS OF THE GENITALIA

HJALMAR E. CARLSON, M.D.

KANSAS CITY, MO.

It seems peculiar that that portion of the human anatomy which is so available for inspection and is so frequently examined and handled should be allowed to progress to that state of extreme apathy in which it frequently makes its first appearance to the urologist. Associated with the physical disability there is also a profound mental effect on the patient.

Since most of the cases are seen in outpatient departments and relatively few in private practice, it is probable that many small indefinite local lesions when first seen are given some simple ointment on which the patient pins his faith as long as he can. He is reticent in discussing his increasing disability at home or with others because of the region involved.

The destructive lesions of the genitalia are eight in number and include paraphimosis, malignancy, tuberculosis, actinomycosis, granuloma inguinale, lymphogranuloma inguinale, chancroid and gangrenous balanitis. One might also add the well known primary chancre particularly those occurring on the frenulum which produce its well known typical destruction.

PARAPHIMOSIS

Of these destructive genital lesions, paraphimosis probably occurs the most frequently but there is seldom extensive destruction because the patient or his doctor can usually easily reduce it. Occasionally, however, in the mentally weak, the paraphimosis is allowed to persist until necrosis of the glans results and the bare ends of the corpora are left exposed. In a difficult case of paraphimosis glycerin packs and anesthesia will assist in reduction.

MALIGNANCY

Of the malignant conditions producing destruction of the genitalia, carcinoma is much more common than sarcoma. In early lesions involving the glans only, as high as 80 per cent cures have been reported. The following is a case illustrating a typical history. This was a man, aged 55 years, married, who for six months had complained of an eating, itching sensation at end of his penis. He did not see any ulcerations but when he would rub the itching spot it would bleed. The foreskin became tight and he could not bring it back as easily as before. Finally, he could not bring it back at all. Five weeks before he was seen he was circumcised but the circumcision wound did not heal. He said he was then given four shots in the arm but the wound still did not heal. A partial amputation of the penis was performed. Pathological report was squamous cell epithelioma of the penis. In carcinoma of the penis recurrence sometimes occurs and when it does it is most frequent in the penile stump with metastases in the inguinal region.

All too often patients with carcinoma of the penis are not seen until late in the disease when the penis is almost completely destroyed. Figure 1 shows the penis entirely destroyed and replaced by a sloughing ulcer with a profuse foul discharge and regional metastatic implantation. I would say that this case has progressed to a state of extreme apathy before being seen. Another malignant condition which may produce genital destruction is carcinoma of the scrotum. An early case of this type in a relatively young man was seen; the patient had noticed this growth developing slowly over a period of some six months.

TUBERCULOSIS AND ACTINOMYCOSIS

Tuberculosis and actinomycosis are rare destructive lesions of the genitalia. In tuberculosis there are usually far advanced lesions elsewhere. The disease begins about the meatus and gradually spreads until the entire penis is

Read before the Jackson County Medical Society, at Kansas City, April 28, 1936.



Fig. 1. Late carcinoma of penis.

involved. There is a peculiar reddish tint to the ulceration and tubercles may be present so that the lesion has a finely nodular appearance.

GRANULOMA INGUINALE AND LYMPHOGRANULOMA INGUINALE

There are two destructive lesions of the genitalia in which the diagnosis is frequently confused. Both are probably transmitted through sexual contact. These diseases are granuloma inguinale and lymphogranuloma inguinale. They occur most often in Negroes and are seen only in the warmer climates including Missouri, never in the North. We have had under observation some fifteen cases of granuloma inguinale and six cases of lymphogranuloma inguinale.

Granuloma inguinale is due to the Donovan bodies which can be seen in the mononuclear cells in the lesion. The disease begins as a sensitive papule usually on the penis which breaks down and becomes pustular and ulcerative. Hard scar tissue replaces the infected area as the disease continues to progress at the margins. Obstructions to the outflow of urine are common. The cases are best treated with potassium antimony tartrate, 1 to 2 grains, or fuadin intravenously. Sometimes the ulceration of granuloma inguinale extends into the perineum about the rectum. A case of this type was seen where irregular therapy with tartar emetic had been used two years previously with little effect. He was given the new drug, fuadin, regularly and prompt healing occurred.

Lymphogranuloma inguinale is a disease which is distinct from granuloma inguinale. In the "Index Medicus" it has been wrongly placed under Hodgkin's disease. It is due to a filterable virus which invades the lymphatics and causes destruction of all lymphatic tissue in the perineal region. Abscesses are frequent and on breaking



Fig. 2. Lymphogranuloma with perineal fistula.

down they produce a brownish discharge. In the male, extension occurs in the inguinal region while, in the female, extension occurs into the bladder with the formation of vesicovaginal fistula and rectal strictures. Diagnosis is frequently assisted by the Frei test which consists in the intracutaneous injection of some of the pasteurized abscess material suspended in saline. The disease eventually stops by itself in ten or fifteen years. It does not yield to potassium antimony tartrate or fuadin therapy as does granuloma inguinale. In the male excision is advised including excision of the inguinal glands; in the female, dilatation of the rectum for stricture and the opening of localized abscesses, as necessary for the comfort of the patient. I have attempted repair of a large vesicovaginal fistula and a destroyed urethra and was surprised at the amount of union obtained. Figure 2 illustrates a late case of lymphogranuloma inguinale showing a lesion on the scrotum with the urine coming through the fistula. The lesions are of eighteen months' duration; the discharge now is profuse and brownish in color. A complete round of fuadin gave no result and daily neosalvarsan also produced no effect.

CHANCROID

As a general rule chancroid heals with little permanent destruction with ordinary cleanliness. It often starts locally on the penis and differs from the syphilitic chancre in its early development after exposure, its greater abundance of discharge and its deeper ulceration. Formaldehyde seems to have some virtue in difficult cases and is applied after topical anesthesia to the ulcer.

GANGRENOUS BALANITIS

This condition is evidently quite rare and is mentioned here to complete the etiological fac-

tors of genital destruction. An excellent photograph of this lesion is shown in Sutton's book on "Diseases of the Skin," page 1087, ninth edition.

CONCLUSION

In conclusion, we may say, that of the eight destructive lesions of the genitalia, paraphimosis, although common, is usually treated well without bad results. Chancroid usually heals with cleanliness and antiseptic assistance in which formalin has been found useful. Tuberculosis and actinomycosis are rare, and though lymphogranuloma is not extremely uncommon it offers no satisfactory treatment. The two most common organic lesions; namely, carcinoma and granuloma inguinale, yield well to present day treatment. Early recognition is necessary to effect a cure with a minimum loss of tissue which seems so vital to normal human mental equilibrium.

1530 Professional Building.

STANDARDIZATION IN THE TREATMENT OF GONORRHEA IN THE MALE

ROGERS DEAKIN, M.D.

ST. LOUIS

It takes a certain amount of courage to appear before this Society to read a paper on the subject of gonorrhea. Some of you probably will be saying that time should not be taken to discuss such a plebian topic; that the time could in fact be devoted more profitably to some more scientific subject. I might agree with you, at least in part, were it not for the fact that gonorrhea is receiving a great deal of attention these days in all medical circles; the increasing frequency with which it is being made the subject of discussion before even national medical organizations is very heartening to those who have an especial interest in gonorrhea.

There can be no doubt that gonorrhea is treated atrociously by a great many doctors whose major interests lie elsewhere and see only an occasional case of gonorrhea; yet it is this group who in the aggregate treat the great majority of the cases that come to physicians for treatment. The lack of knowledge of gonorrhea, the general confusion regarding its treatment and the tendency to think of it in terms of morality rather than as a medical entity have permitted a situation which badly needs correction. I know of no disease in which doctors confess their ignorance as to its treatment more freely than that of gonorrhea.

Read before the St. Louis Medical Society, January 19, 1937.

For some years the Neisserian Society of Massachusetts has devoted all its time to a consideration of gonorrhea. In 1934 the American Neisserian Medical Society was organized in order to encourage a wider scope and a more national study of this "step-child" of medicine. Many of the men comprising the membership of this new society have felt and still do feel that gonorrhea deserves the same consideration that has been given syphilis. The incidence of gonorrhea, its economic cost to the nation, its sociologic and public health aspects have long warranted far more attention than it has received from the medical profession, public health agencies, or in fact any agency which is directly or indirectly concerned with problems of disease. It is high time that free discussion of gonorrhea among medical men provoke the same thought, the same differences of opinion, and the same ultimate clarity and unity of ideas and action that has characterized similar discussion of other ailments to which the human race is subject.

We have dramatized syphilis. Medical organizations, public health agencies, newspapers, insurance companies, religious organizations, social service agencies—all have coordinated their activities that the public might be informed of the prevalence and ravages of syphilis. But so little has been said of gonorrhea that the public sees or hears little of the drama and tragedy in the "female trouble," the sterility, the crippling major operation for "pus tubes" and the myriad of difficulties which can be traced back to an unsuspected or undiagnosed gonorrhea.

It may be true that we do not have the specific armamentarium for gonorrhea that we have for syphilis, but the epidemic relationship which gonorrhea bears to syphilis demands that we make the fullest use of the therapy we do have and that the public shall be equally as well informed regarding gonorrhea.

My excuse, then, for this discussion at the present time is to acquaint you with the activities of the American Neisserian Medical Society in general and, in particular, to discuss the attempts which this society is making to standardize the treatment of gonorrhea in the male. I am perfectly aware that such treatment cannot be reduced to the routine of a production line in an automobile factory, but I do believe that something approaching the standardization which has been effected in antileptic therapy can be reached.

HISTORICAL

Pelouze has written: "It would seem that by the sheer weight of the misery it produces throughout the world, gonorrhea would force itself upon public notice." It is true that the origin of gonorrhea has been lost in the dim

past, but "its trail may be followed through the medical records of all the ages of mankind." It is, in fact, one of the oldest recognizable diseases. Moses described it; indeed, he told how to control it. You will find in verse 2, chapter 15, of the book of Leviticus the following: ". . . When any man hath a running issue out of his flesh, because of his issue he is unclean." That Moses was aware of the contagiousness of the infection is certain from the text of succeeding verses in the same chapter. His laws prohibiting prostitution and his penalties for adultery and rape, and immoral sex relationships and practices all speak of his knowledge of gonorrhea and his desire to stamp it out.

Gonorrhea has been traced to three distinct early civilizations; the Sumerian in Western Asia, the Aryan in India and the Chinese in the Far East. Leopold Brodny has recently gathered together some most interesting data regarding gonorrhea in the earliest historical times. We learn from him that the Sumerians, originating in Central Asia, migrated down the Euphrates, and eventually founded the Babylonian civilization. The clay tablets which this enterprising and highly intelligent civilization left behind, written between 900 and 600 B. C., but describing a much older civilization, tell of a myth, the moral of which was that exciting divine wrath or sexual excess might result in venereal disease. The same tablets list eight different urinary and genital complaints, with as many as twenty-one prescriptions for each. Religious prostitution in this civilization provided an ideal means for the dissemination of gonorrhea.

Egyptian papyri show a definite attempt to regulate procedures which produced undesirable conditions, a primitive attempt at sexual hygiene. Venerology and urology were practiced as specialties thousands of years ago. Herodotus wrote of the specialization in "physics," of those physicians who strove to excel in healing sore eyes, teeth, stomach and belly disorders, and even those who dealt with the "secrets and privy infirmities." The Ebers papyrus, which is preserved in the University of Leipzig, was written about 1500 B. C., though there is evidence to indicate that it was copied from sources many centuries before. It contains 877 numbered prescriptions. Here it is written that the vulva could be protected against the entry of disease by injecting a douche which contained garlic and the horns of a cow as ingredients. If this prophylaxis did not work and inflammation ensued, the papyrus says to change the douche to one of bile, cassia and oil.

The ancient Hindu physician knew of twenty different remedies for the treatment of gon-

orrhea. Putrified tin was a prominent drug that was believed specific for this disease and was especially recommended for painful micturition. Honey was used both externally and internally.

Thousands of years ago, still according to Brodny, the Chinese described gonorrhea as an "external disease different from all the others and of which the symptoms are easily recognized. It is an inflammation of the urethra or vagina, with the drainage of corrupt red or white material from these organs." They recognized many etiologies for this condition: "Contact of the virge with a material of a peculiar nature excreted by the genital organs of the woman, an inflammation of the bladder produced by excessive coitus and masturbation, and a very hot medication," etc. The description of the course of an acute gonorrhea found in one of the earliest preserved Chinese manuscripts might almost be taken from a modern textbook. So much for its historical background.

PREVALENCE

Now let us review briefly some of the present day statistics regarding the incidence of gonorrhea. The United States Public Health Service recently published an analysis of data in which, by making use of "one day prevalence studies," certain interesting information regarding the population of this country was obtained. They found that: 1,037,000 fresh infections with gonorrhea reach medical attention annually; a second million persons with gonorrhea in later stages also seek medical attention annually; on any given day nearly 500,000 persons with gonorrhea are under treatment or observation; the number of fresh infections with gonorrhea which actually reach medical attention outnumber those reported to health departments nearly seven to one; gonorrhea is more prevalent in rural than in urban communities, confirming United States Army findings among draftees during the war; the ratio of fresh infections with gonorrhea under medical care to fresh infections with syphilis under medical care is as two to one; the ratio of male to female infections with gonorrhea under medical care is nearly three to one.

Do I need to mention the millions of cases which are self-treated without benefit of advice other than that of a friend, chance acquaintance, or druggist?

THE AMERICAN NEISSERIAN MEDICAL SOCIETY

Since the conception of the American Neisserian Society its membership has increased rapidly. There are now nearly 400 members. The caliber of its membership may be estimated by its leadership. The first three presidents of

the Society have been Doctors Barney of Boston, Pelouze of Philadelphia, and now Parran, Surgeon General of the United States Public Health Service. Dr. Edward L. Keyes is its lifetime honorary president. One writer recently has called gonorrhea the Cinderella of medicine and this new society its Godmother. The stated object of the Society in its constitution is "clinical and laboratory research in the diagnosis, the medical and social pathology, and the treatment of gonorrhea, with a view to the reduction of its prevalence; the scrutiny of the management of gonorrhea in both male and female; and the dissemination among the medical profession and the public of authoritative information concerning gonorrhea."

Certainly the activities in which the Society is now engaged may be fruitful of increased interest. They include committees which are working on a standard treatment for gonorrhea in the male and the female, a committee on laboratory and research, a committee which is preparing a Speaker's Guide on the genito-infectious diseases (a term which it is hoped will replace the present use of the term venereal), statistical committees, and finally cooperation with the Council on Pharmacy and Chemistry of the American Medical Association whereby therapeutic agents for the treatment of gonorrhea, for which council approval is asked, will be submitted to the American Neisserian Medical Society for impartial clinical evaluation.

STANDARDIZATION OF TREATMENT IN THE MALE

Last year a rather detailed questionnaire on the treatment of gonorrhea in the male was sent to the members of the Society. Dr. Pelouze presented a summary of the results before the Society in May, 1936. As he pointed out, the questionnaire originated "in the hope that sufficient agreement on the part of the members might serve as a basis for combating the rather general confusion regarding this disease and its treatment." Despite the widely accepted view that none of us know very much about the treatment of this disease, the results of the questionnaire showed surprisingly little difference of opinion upon the important points in this group of men who are especially interested in gonorrhea. As a matter of fact, there was agreement ranging from 75 to 100 per cent on most of the essential things.

If I may, I should like to present rather briefly the pertinent points on which there was agreement in both anterior and posterior urethritis and the proofs of cure.

ANTERIOR URETHRITIS

In the consideration of anterior urethritis the majority feels that treatment should be started

as soon as the patient comes to the physician. No evidence has been presented that delay in starting local medication is of benefit; on the contrary, there is every reason to believe that prompt treatment helps to shorten the duration of the infection and to lessen the incidence of complications. Furthermore, it is felt that such treatment should be confined to the anterior urethra in the beginning. The first and cardinal principal of all local treatment is gentleness. All experience points to a better result since it was recognized that rough handling and too irritating chemicals were responsible for many of our bad results.

The use of an irrigation of the anterior urethra with from a 1:10,000 to 1:5000 solution of potassium permanganate once a day finds favor with most of those who replied to the questionnaire. A warm solution held in a container about 2 to 3 feet above the genitalia is preferred. A greater height than this gives too great pressure and increases the chance of a posterior infection. We learn, too, from Dr. Pelouze's report, that hand injections with a 5 to 10 per cent solution of mild silver protein (of which argyrol is the most commonly used) or a $\frac{1}{4}$ to $\frac{1}{2}$ per cent solution of strong silver protein (protargol) is also very commonly used; 1:2000 acriflavin may be substituted where there is an intolerance to silver protein.

Care must be taken not to overdilate the anterior urethra; about $\frac{1}{4}$ oz. or less ordinarily suffices, for it should be borne in mind constantly that the capacity of the anterior urethra varies between 3 and 8 cc. Although most men feel that treatment should be done by the physician himself this is not always feasible. In practice, it is quite satisfactory in most instances to teach the patient how to inject himself in the office and then permit him to do this at home twice a day, and to hold each injection several minutes each time. As the case progresses, if it is necessary, either the time for holding the injection may be increased or the strength of the solution increased. We do take some time at the outset to explain the reason and importance of the injection and are prone to dispense with the preliminary permanganate irrigation except in unusual cases. Moreover, the importance of a proper syringe outfit for hand injection should not be overlooked, for maintaining syringe asepsis is a very important need. The committee report saw fit to dwell upon this point to the extent of recommending the well known Asepto outfit (No. 2043).

It goes almost without saying that every patient should be instructed regarding the injudicious use of alcohol and the adverse influences of sexual excitement and excessive physical exertion. A little extra effort on the part of the

physician at this point to gain the cooperation of the patient will usually be rewarded by a quicker and easier cure.

The committee reports no oral medication of specific benefit, although sandalwood oil, alkalis and even sedatives are frequently used when there is excessive discomfort. A number of men still feel that the oral administration of one of the azo dye preparations as a supplement to local treatment is of benefit, although the item of expense definitely limits its use to a small group of cases. Regular hours, plenty of rest and sleep and a rational diet, perhaps restricting highly spiced foods, are useful directions to the gonorrhoeic.

There can be no doubt but that a week or so in bed at the beginning of an infection will in most instances materially reduce the duration of the disease and lessen the incidence of complications, although I do not believe that such a regime, alone, that is, without any local medication at all, would be a dependable or safe routine in most cases. Certainly it is rare that one finds an individual willing to go to bed at all unless he is forced to do so.

The use of heat, in the minds of the committee, as summarized from the answers to the questionnaire, is not a practical method except in a few isolated clinics where especially trained personnel is available. The differences in opinion that were expressed as to its value probably are more differences as to the technic than differences as to its merit. Certainly, fever therapy as we have it at present does not lend itself to the treatment of large groups of cases and must for the time being be placed in the category of a useful adjunct to treatment, particularly for complicated cases, rather than an accepted form of therapy adaptable to all cases.

The committee report regarding biological preparations will be of interest. All such preparations are regarded as still in an experimental stage. The report is quite definite on this score. The majority group feels that the widely publicized Corbus-Ferry filtrate merits further investigation but that it cannot properly be included in any recommended standardized routine at the present time.

POSTERIOR INFECTION

In the presence of an active posterior urethral infection, the majority opinion is "to stop all local medication and not institute it again until the acute symptoms have subsided. During this period of treatment inactivity, one should give some oral medicament aimed at reducing discomfort. Of these, some form of opiate, the bromides and hyoscyamus are most highly favored. Some men use sandalwood oil, or opium suppositories, and more would advise hot hip

baths. Little confidence evidently is placed in urinary antiseptics by most of the respondents. Rest is insisted upon at times, even rest in bed. The patient is instructed to avoid heavy physical exertions, particularly with any quantity of urine in his bladder. When the acute symptoms have subsided, the majority would use intravesical irrigations (at low pressures) and are overwhelmingly against the passage of Keyes-Ultzman or similar types of deep instillation syringes while the gonococcus is present.

"Later, when it is deemed safe to do so, the larger group would start prostatic massage about twice a week and continue this treatment until the prostatic secretion was normal."

The subject of prostatic massage can hardly be allowed to drop this sharply. I think we might amplify it in this way: when the urethritis has subsided and is under control or when it is obvious that there is no further progress toward cure, the prostate may be examined and if found infected, massage then started. We try to avoid massage until several negative smears have been obtained from the discharge, from shreds in the first glass, or in any urinary sediment. It is rare that we institute even light massage in less than six weeks from the onset of the infection. On the other hand, I agree that some cases are met with in which massage and irrigation have to be started, even in the face of organisms, both intracellular and extracellular, before further progress is made.

And it is certainly our experience that to continue the massage until there is no longer any pus in the prostatic secretion may take a long time. Yet we may take heart in the statement attributed to Dr. Keyes "that the cure of a prostatitis is not a matter of weeks or months oftentimes but a matter of years."

A summary of the opinions of the correspondents regarding the proofs of cure reveals that most men believe in urethral dilatation by sounds, that a smaller group, but still an imposing majority, rely on the alcohol and sexual excitement test, that stains of the prostatic and urinary sediment find almost universal favor, and a considerable number use the instillation of silver nitrate as a provocative test. The majority do not use vaccines or gonococcal filtrates, take cultures or run complement fixation tests.

I would like to amplify this a bit. Microscopic study of stained smears is, I think, our most important means of determining a cure. Without a knowledge of staining technic and the ability to use a microscope, a man is lost. With them he can be assured of his results. We regularly give patients who have only a slight morning drop two slides on which to make their own smear and to bring in for stain-

ing. Fishing a small shred from a urine specimen and finding the gonococcus in it may make a great deal of difference to a patient whose symptoms are gone and who has no discharge. A stained prostatic secretion may mean the difference between a cure and a recurrence. Again, a large sound need not or should not be rammed home to see if it will light up an infection. Careful, gentle dilatation, first of the anterior urethra and later of the posterior urethra, will serve you as well and at the same time be much less apt to traumatize and permanently cripple a urethra. Furthermore, if we suggest an alcoholic test or permit some sexual activity with a condom, we urge moderation in the beginning.

I am purposely omitting any discussion of the various gonorrheal complications since our premise this evening has been to present suggestions for a standardized handling of an average uncomplicated gonococcal urethritis. The more or less didactic outline of how a gonorrhea is handled by a large group of interested doctors in fairly close agreement which I have given is in no sense to be considered the last word. Rather may we say that it is simply an introduction to a wider and saner therapy. Probably no one individual among the group whose opinions were made the subject of this clinical report subscribes in toto to every point which has been discussed. Certainly there must be a considerable latitude in handling each patient. But I think the efforts of this new society to more or less standardize our treatment of gonorrhea and at the same time maintain a constant watch for worth while improvements in medication and rational new technics merits every consideration. And if we can arrive at something approaching the accomplishments that have been achieved in the efforts to control and combat syphilis, we will have done a good deed.

Just one more quotation and I am through, this time from an article by Dr. N. A. Nelson: "One afternoon, a philosophical gentleman, with an hour or two to spare between trains, wandered through the streets of the city in which he chanced to find himself. He came, eventually, upon a scene of bustling activity where some great building was under construction. Curious, not so much over what was being built, but rather as to what human reactions he could provoke, he approached one of the workmen. 'What are you doing?' he asked. 'Can't you see I'm mixing mortar?' came the surprised response. Apparently unsatisfied, the stranger went to another of the busy men. 'What are you doing?' he asked again. 'Why,' was the annoyed reply, 'I'm cutting stone.' Still not having found that for which he sought our philosopher approached a third workman to

whom he repeated the peculiar question. Once more he was almost rudely rebuffed with, 'You can see for yourself that I'm sawing lumber.'

"In despair, the stranger looked around. Finally his gaze fastened upon a little old man whose task seemed to be that of picking up tools and putting things away. His ineffectual puttering classified him as one to whom a job had been given, not because of his usefulness, but out of charity in order that he might live. To him the gentleman put his question, 'What are you doing?' The little man straightened his crooked back the best he could, looked his questioner in the face, and with a holy light in his eye, replied, 'Sir, I am helping to build a cathedral.'

"This old man, the least important of them all, had caught the vision of those who had planned the grand structure, and had made it his own. He alone had lifted himself out of the dull and unimaginative routine of the daily grind, to revel in the glories of a cathedral which he was helping to build . . . The American Neisserian Medical Society proposes to build a cathedral. What manner of structure it proves to be will depend upon what manner of dream they have who build it. If the stone cutter had had the creation of the building in our story it would have been nothing but a meaningless pile of stone. If the carpenter had had his narrow-visioned way, it would have been a tiresome and flimsy edifice of wood.

"This 'cathedral' . . . may turn out to be nothing but a one-story affair looking for all the world like a glorified Kettering Hypertherm, or it may be only a hole in the ground bearing a marked resemblance to a gigantic sitz-bath. It may take upon itself a cylindrical form like some monster syringe from whose needle-spire gonococcus filtrate will intermittently spout; or it may look like nothing so much as a shiny soda-fountain dribbling brightly colored solutions of mercurochrome and acriflavin and permanganate from its busy pumps. It may become a monument to foreign proteins, or an altar to the god of therapeutic house concoctions. It may prove to be nothing more than a hall of debate in which the heat of argument and the deadly drought of personal prejudice will dry up the fountains of research and the cooling stream of common sense. Or it may become in fact a cathedral, beautifully proportionate, resting squarely and solidly upon a sound foundation, humbly and honestly dedicated to the better management and the ultimate control of a disease from which an ignorant and prudish world has suffered long enough."

CLINICAL USE OF DIGITALIS: VARIABLES ENCOUNTERED

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In 1542 Fuschius first described digitalis purpurea. Withering¹ in 1785 after a ten year trial of its action clinically, presented the results of his observations on 163 unselected cases of dropsy. He found the drug worked almost miraculously in some cases, fairly well in others and not at all in the remainder. He looked upon it as a diuretic primarily but did note that it slowed the heart. His dropsy patients were probably suffering from heart disease, Bright's disease, liver cirrhosis and perhaps other conditions. He unconsciously made a distinction in his cardiac cases when he faithfully described the rather marked difference to be observed in the results of the drug action between what we can at this time recognize as a mitral stenosis with auricular fibrillation accompanied by marked congestive failure and a hypertensive heart with edema. He used from one to three grains of the powder twice a day until he had obtained a maximum therapeutic result or mild symptoms of poisoning, at which point the drug was discontinued. To him each patient presented an individual problem. It may be said that while he did not have well defined indications for the use of the drug, nevertheless his method of using it was excellent.

Withering, even at that time, had had many opportunities of observing the misuse of the drug in the hands of other practitioners for he laments the enormous doses given in London and the unrestrained manner in which it was being applied in Edinburgh. (It is interesting to note that Cushny,⁷ writing in 1911, made practically the same statement.) With prophetic vision he wrote "The latter (a remedy) will ever be subject to the whims, the inaccuracies and the blindness of mankind." So it turned out and the next 100 to 125 years saw the drug used for almost everything, such as phthisis, internal hemorrhages, aneurysms, as a cardiac and circulatory sedative to name but a few. Robinson² quotes Pratt who investigated the effect of Withering's teaching on the clinicians prominent up to the last quarter of the 19th century and found they had profited but little and never grasped the idea that digitalis was a sovereign remedy in heart failure. This same author gives to McKenzie the credit as a clinician in demonstrating the correctness of Withering's ideas. In 1874 Schmiedeberg³ showed the action of digitalis on the frog's heart.

In this country digitalis was given an assured place as a medicinal agent by Barton⁷ of Philadelphia in 1798. Watson,⁴ a widely read medical authority in the editions from 1844 to 1872, used digitalis as a diuretic, and then not as a first choice, in dropsy accompanying heart disease. He used $\frac{1}{2}$ oz. of the infusion every 4 to 6 hours for three doses and then paused to note the effect. If the result was satisfactory this "course" was repeated. Austin Flint⁵ in his second edition (1867) thought digitalis to be useful in valvular disease in an enlarged heart. He said it regulated and tranquilized the organ without depression. It also relieved irregularity and increased the force of the ventricular contraction. Osler⁶ in 1892 gave broken compensation as the indication for the use of the drug. He recommended from 5 to 10 minims of the tincture three times a day in mild failure and for a prolonged period. In a more pronounced case, he used from 10 to 15 minims every three hours for two days and then reduced the dose. In 1903 larger doses were recommended in pronounced anasarca. In the 1912 edition the drug was changed from the section on valvular diseases to one on cardiac insufficiency and the work of Gaskell, Engleman, Weckenbach and McKenzie on the arrhythmias was introduced. The minim measure was dropped in favor of the metric cc.

Cushing,⁷ a pharmacologist who had joined forces with McKenzie, an outstanding clinical cardiologist, deplored in 1911 the fact that clinicians had not caught up with workers in the field of animal experimentation. He pointed out that the known facts about the action of digitalis should be made available to those suffering from heart disease. Eggleston⁸ a few years later met this challenge when he brought to the attention of the medical profession the fact that digitalis could and should be used up to its maximum therapeutic possibilities; that when necessary patients could be digitalized quickly by large doses without harmful toxic effects and that there existed a direct ratio between the weight of the patient and the amount of the drug to be used. This was the beginning of the modern method of treating heart cases with digitalis and has continued up to the present time with some modifications, largely in the direction of decreasing the size of the dose and spreading the amount to be taken over a longer time except in urgent cases. The last twenty years has brought an enormous amount of activity in the diagnosis and treatment of heart disease. Recently Willius⁹ has said "This important agent (digitalis) is one of those which is most abused." So, perhaps it will be profitable for us to inquire into some of the conditions that might account for this statement.

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Originally the effectiveness of particular leaves was known to the individual clinician who used them, but as time went on it became necessary to devise some method of indicating the strength of the drug to physicians generally. The chemical assay was used for a long time but for a number of reasons proved unsatisfactory for digitalis is an exceedingly complex drug chemically. There was a wide difference of opinion as to the identity of some of the glucosides, so much so that a digitalin or a digitalein to one investigator meant one thing and something else to another. Late in the last and early in this century, commercial preparations varied in potency by several hundred per cent. Since then there has been a constant improvement in the digitalis offered to the physicians. In moving away from the chemical tests for activity, the frog, cat, guinea pig and other animals were used. In 1910 the frog method was made official for the U. S. P., 9th Revision. Several were always employed and the activity stated as an average. So in a sense it was a test of the drug by the animal and in a way it was also a test of animals to the drug. The average is simply a theoretic figure and represents more or less the figure between the extremes of the range above and below an average which may be a "mean" or a "median," preferably the latter. So when we say that a particular specimen of digitalis has a particular potency expressed in biological units we should keep in mind this is only an average with all its statistical implications. The U. S. P., Revision XI, official after June 1, 1936, uses as a standard the International Digitalis Powder, 0.1 gm. of which must have the activity of from 1.0 to 1.1 U. S. P. digitalis units. This does away with "the present several units." The Board is custodian of this powder and is authorized to give it out to experimental laboratories, drug and food manufacturers.

A footnote in the Pharmacopoeia states that a 20 per cent plus or minus range will be acceptable in view of the variables of necessity entering into biological standardization.

When Withering's methods began to be revived the dose usually given was a small one, perhaps 10 minims three times a day which in the event of a minim being considered a drop, became 4 minims, a subtherapeutic dose. However, after a while the qualitative attitude toward digitalis as a remedy began to take on more of a quantitative aspect suggested possibly by the fact that in testing the drug quantitative calculations involved both the drug and the animal. So it was easy to accept Eggleston's plan for so much drug for so much weight, an idea which always has prevailed with many other drugs. The recent trend toward the use

of the powder makes for accurate dosage inasmuch as the patient always gets what you think he is getting which is not so when droppers are used.¹⁰ In fact, one of the major reasons for the American Heart Association abandoning liquid preparations in their heart clinics was the impossibility of controlling dosage when there was any opportunity for the patient to use a dropper. In using it there is always an error in at least two directions, one depending on the varying alcoholic content and the other on the varying size and type of dropper. Generally speaking patients receive only about one-third of the dose thought to be taken. The new U. S. P. XI for the first time makes official a dropper which delivers 1 gm. water in 20 drops and there is a variation allowed of 10 per cent on either side. This will not help us much for this same dropper in order to measure 60 minims has to deliver from 160 to 170 drops, depending on angle held, of the U. S. P. tincture digitalis and the same thing is true of all other tinctures of similar alcoholic percentage.

The indications that have been put forth for the exhibition of digitalis would make a long list. A good basic primary rule to follow would be to take such steps in a comprehensive general examination as will ensure first of all a diagnosis of chronic heart disease and not something else, which diagnosis is amplified into its etiological, anatomical, physiological and functional capacity components. There then can be easily determined whether congestive failure is present, usually considered the principal indication for digitalis. Especially should heart failure be distinguished from circulatory failure. While in a sense they are associated and one implies the other at least in their terminal stages, still, there is a fundamental difference both in cause and treatment. Congestive heart failure is paralleled by a venous stasis which produces congestion, swelling and edema in the lungs, liver, abdominal viscera, subcutaneous tissues and the abdominal, pleural and pericardial cavities. Circulatory failure has nothing to do primarily with the heart. It develops under a variety of circumstances as in infectious diseases where it is characterized by capillary dilatation and transudation of fluid. Clinically these patients have a small rapid weak pulse and a weak first sound at the apex; the blood pressure is low, their circulating blood volume is diminished, the chlorides are reduced and there is pooling of the blood in the stagnating areas of the body. The treatment is not digitalis but heat, raising of the end of the bed, bandaging lower extremities, fluids, with salt and dextrose into the veins and drugs designed to raise the blood pressure. This condition of shock is seen after accidents, operations, etc.,

and frequently digitalis is relied upon but its use is perhaps not actively bad but it gives a false sense of having "strengthened the heart" while other measures much more effective for the circulatory failure are apt to be neglected.

There is another large class of patients who believe they have heart disease. They may consider their symptoms indicate this condition or some one has told them they have a murmur, leaking heart, etc. Frequently they have been taking heart medicines which of course tend to fix the idea. These individuals constitute a problem to the physician who should first of all make a comprehensive complete examination so that he himself will thoroughly believe that there is no organic heart disease present. Armed with this conviction he will have less difficulty in persuading the patient that there is absolutely nothing wrong with the heart. On the positive side it should be carefully explained that the heart symptoms are functional (not imaginary) and that improvement will come with treatment of the nervous system. Recently Cady¹¹ has described this group.

In a case with marked congestive heart failure physicians usually try to digitalize the patient in say from two to three days, using a calculated dose based on so many cat units per pound of patient. This dose theoretically should produce the desired therapeutic result in all cases of this kind. However this is not always the case. Eggleston and other found that the amount of the drug necessary varied from 60 per cent above to 40 per cent below the average and was 10 per cent plus and minus in only one fourth of the patients. When it became necessary to compute the ration dose based on the amount of the disappearance of the drug per 24 hours Pardee found again that the range above and below was 55 and 80 per cent, there being only about one third grouped as plus and minus 20 around the average. It has been found very advantageous to test the action of the drug in man by using it in a well marked case of auricular fibrillation where the effect can be readily detected in the pulse. (Here too there is a wide range and only one half of the patients come within 20 plus and minus of the average.) The same situation develops when we look into absorption from the tissues or the gastro-intestinal tract, persistence of action, initial effects and other problems connected with the pharmacologic action of digitalis in man. From this it can readily be seen that an average dose is only a suggested safe one, more or less in between the extremes and it is our problem as clinicians to work up or down to a dose at which the patient shows a maximum beneficial effect from the drug. It can readily be appreciated too that at all times we are dealing with variables connected

with the drug and also its action on the diseased heart. The variable in one situation may be added to the variables in others or one may be negative in another so that it is difficult, if not impossible, to rely entirely on the quantitative concept in treating heart disease and this I take it is the view we should have in the field opened up by Eggleston in 1915.

There is at present a wide difference of opinion as to the value of digitalis in conditions that might be termed mild failure such as the underlying condition that makes nocturnal paroxysmal tachycardia possible and the mild dyspnea on exertion in hearts in which it is difficult to make an accurate diagnosis. Here the drug can be made the agency of a diagnosis by therapeutics. It would seem desirable as practicing physicians not to be too closely bound to dogmatic contraindications for digitalis, one of the relatively few drugs that serve us so well when intelligently used. One has only to remember the contraindications given formerly for its use, in aortic regurgitation, hypertension and arteriosclerosis, to realize the vast number of individuals who were shut off from the benefit they otherwise might have received. The same can be said of the statement current only a few years ago that the drug was of very little if any use in failure unless accompanied by a rapid irregular heart. Physicians sincerely differ as to whether digitalis has the same action on a normal heart as it has on a diseased one. Others believe that the results of animal experimentation can be carried over directly to the human being while others agree with this only with many qualifications. Then too digitalis will be effective in proportion to the ability of the physician to control other phases of treatment having to do with sleep, diet, elimination, exercise, psychotherapy, physiotherapy, weight reduction, removal of fluid accumulation, treatment of existing anemia, etc. Digitalis works better in association with other drugs, such as those designed to eliminate water in anasarca. Sometimes digitalis has but little effect until this is accomplished. There are variables present in absorption, storage, destruction of the drug in the body and its elimination. The question of absorption is a very practical one and rises above academic considerations for it was on account of this variable that tincture strophanthus was deleted from the Pharmacopoeia. Different individuals react fundamentally in a different manner to the drug. The drug does not act in just the same manner throughout all stages of heart disease and the time comes when it does not act at all. Digitalis like other drugs (as iodine in thyrotoxicosis) may act better the farther the heart is removed from normal. In a certain sense the clinician, when he gives digi-

talis to a person ill with heart disease, is conducting an experiment in which constants, variables and controls should enter as a part of treatment.

Some clinicians, in auricular fibrillation with failure, have tried through physical and electrographic examinations, to secure a standard index of when digitalis showed its initial effect, its maximum therapeutic action and its toxic stage but not with complete success owing to the inherent variables present. Patients vary in their ability to show, as an early sign of toxicity, nausea and vomiting. So much so is this the case that unless other signs are looked for the drug action might easily go into a serious phase. This is thought to take place as a result of an early depression of the reflex mechanism in the heart. It has seemed to the writer that this takes place rather frequently in the Negro where in a large hospital coupled beats from digitalis can be found from time to time without vomiting or even nausea.

There is a relation between the vagus and accelerator determining the ventricular rate which varies in individuals, in childhood, after infectious diseases, in Graves' disease and other conditions where on account of the ascendancy of the accelerator more digitalis than usual is required.

In view of what has been said it is pertinent to suggest a general plan for the clinician to follow. We can all start by choosing an accredited biologically assayed preparation realizing the variables present up to 20 per cent above or below a perfect standard. Then we can make sure that the patient has chronic heart disease and does not have another disease, especially one whose symptoms may be reflected into the heart. We then can determine whether congestive heart failure is present or we may only suspect its presence. We then can administer digitalis in such a manner as to secure digitalization in that particular patient within the course of a week or so. If we believe the action has been beneficial we can put the patient on a maintenance dose. Our success in treatment will be further assured if we can secure the intelligent cooperation of the patient, limit his exertions, secure proper rest, diet, elimination and adjuvant treatment such as efficient diuretics, etc.

In doing this we are constantly surrounded by the influence of variables and it is the clinician's task to steer as nearly as possible into the middle line away from extremes of their range. Just how well the physician does this will depend on the many variables in the physician himself. It is a consideration of these things that lends acquiescence to the saying of His,¹² made long ago, that an experienced physician could be told

from an inexperienced one by the way he uses digitalis and of Osler¹³ who said that digitalis was one of the dozen drugs that would repay a life long study.

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RECURRENT LYMPH HYPERPLASIA IN CHRONIC ATROPHIC ARTHRITIS

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There is a small group of cases of atrophic arthritis that clinically simulates Still's disease. Still's disease is defined as a progressive infective rheumatic disease characterized by a generalized lymphatic hyperplasia and local joint findings similar to those found in any infective arthritis. The spleen, liver and other lymphatic tissues are not always greatly enlarged; however, in the classical disease seen in childhood, this is the rule. Cardiac complications are found late in the disease if at all. Death rarely occurs from the disease but is generally due to some intercurrent condition, such as pneumonia.

The type of atrophic arthritis that is similar to Still's disease offers an interesting study. In my series of over 2000 cases it occurred six times. All of the patients were women. The youngest was 22 and the oldest 39. All gave an identical history. The onset of the rheumatism was like that of any other atrophic arthritis; namely, one or two joints become swollen, red, painful and stiff. In five of the cases the involvement began in the fingers. Progression to other joints was rapid. Seven months after onset of arthritis was the earliest any patient

showed lymphatic manifestation. It is difficult to obtain accurate data in this respect because the patients are not aware of the condition unless there is a lymph node large enough to be noticeable.

The lymphatic involvement comes in cycles. For several days the patient will experience great pain in the joints, mild fever, sweating, loss of appetite and profound prostration. The joints become red and swollen. External appearance, however, does not suggest a joint condition of sufficient severity to cause such general malaise. Not all the affected joints are involved with the attack but as a rule there is a general stiffness over the whole body. Muscular weakness is extreme.

The lymph glands in the neck are as a rule the first involved. The posterior cervical group of glands are more pronounced than the anterior. The submaxillary glands are practically never attacked. The epitrochlea, sublingual and axillary glands are involved in the frequency of order named. The spleen may be much enlarged or there may be only an increase in the dullness. There is in all probability a definite residual enlargement after the attack has subsided and it is my opinion that in the quiescent state the spleen is larger than normal but not as large as during an attack. The liver enlarges with the attack but in my observation returns to normal when the general symptoms have abated.

One of the most persistent symptoms of an attack is pain in the abdomen. This has been seen in all cases and may simulate any acute gastro-intestinal or pelvic condition, most frequently appendicitis. One patient has been brought to St. Mary's Hospital on three different occasions with a diagnosis of appendicitis. Each time she was in an acute general joint flare-up and on all occasions had cervical, epitrochlea and sublingual lymph adenopathy. There was in each instance a mild nausea, abdominal pain and rigidity. The attacks would last from twenty-four to seventy-two hours and would abate spontaneously when the general symptoms improved. One patient who had her appendix removed three years prior to developing the arthritis, stated she had the same abdominal sensations in both experiences. The blood examination shows a leukocytosis and a definite infectious picture.

There are three types of skin manifestations in this condition. First is the true rheumatic nodule; second, erythematous blotches that may or may not be irritating, and third, there is a peculiar urticariaform lesion that appears on the end of the fingers, the tip of the nose, the lobe of the ear or the lips. It comes on suddenly. The swelling is frequently intense and

the pain and itching very great. It lasts for from several hours to several days. Adrenalin has no effect on its course.

It is not infrequent to find ocular disturbances with this condition. The most frequent is hemorrhagic conjunctivitis. Iritis, frequently seen in the long standing cases of atrophic arthritis, has never been a complication and the reason for this is due in all probability to the youthfulness of the patients.

On biopsy the lymph glands that have been resected show a hyperplasia and a mild round cell infiltration.

In the treatment there are two things to be considered; namely, the prevention of the serious complication when in the early part of an attack and the treatment in the attack itself. I have been successful in aborting the disease by administering triple typhoid vaccine in large doses in the first few hours of the attack. After the first day, this treatment has not been nearly so successful. In this stage they should be given a starvation diet, thorough alkalization and large doses of salicylates rectally (300 to 500 grams). The prognosis of this disease apparently is no more grave than it would be for any other patient with the same degree of atrophic arthritis.

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AN REVIEW OF OBESITY AND ITS TREATMENT

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In the last few years, the subject of obesity has been given considerable attention by the layman. This thought has undoubtedly been stimulated by the persistent efforts of the medical profession to awaken the people to the dangers of overweight. We are advised by Joslin¹ and his associates that 78.5 per cent of the males and 83.3 per cent of the females among diabetics are overweight. He further states that the death rate of diabetics increases with the degree of overweight. These findings have been confirmed by insurance records which show that the development of diabetes is far more frequent among overweight individuals than in those of normal or less than normal weight, and they consider overweight of sufficient importance to rate up the premium of applicants because of this factor only. The span of life of overweight individuals is shortened. These facts alone merit sufficient consideration to warrant the medical profession in continuing their efforts in combating obesity.

The definition of obesity is "a condition in which there is an abnormal deposit of fat due

in most cases to ingestion of food beyond the caloric needs of the individual." This definition covers all cases of exogenous obesity, i. e., all cases of obesity in which the individual presents no abnormality other than a well distributed adiposity. The power of combustion is found to be normal, the accumulation of fat being due to overnutrition. This definition also applies to most cases of endogenous obesity, i. e., an obesity due to a defect in endocrine make-up. Even among the latter group a great number of cases of obesity are due to overeating, while other cases are due to an accumulation of fat despite a lowered caloric intake.

It has been noted that females are more likely to become obese than males. The reason suggested is that women normally have a lower percentage of hemoglobin resulting in a reduced oxidizing power. This, in turn, causes the food to be stored rather than burned, thus tending to obesity. Among men, those who have a tendency to obesity usually lead a sedentary life, such as the successful business or a professional man whose exertions are reduced to a minimum. It is well to remember that some individuals are obese because they have been subjected to super-alimentation from infancy or early childhood. It is simple to encourage healthy children to overeat thus starting a habit which is difficult to overcome in later years.

Before attempting treatment of an obese patient one must make a study of the type of obesity the patient presents. One should note whether the distribution of fat is generalized, involving the face, neck, chest, abdomen and extremities; or whether it is localized, as a trochanteric or girdle adiposity. As a further aid in making a diagnosis consideration should be given to the past history with reference to the development in childhood, the pubertal period, as well as certain physical findings. An important point to learn is whether the obesity developed gradually or rapidly, and also the maximum weight reached. Of course, roentgen ray studies are frequently indicated. For example, a study of the bone development in childhood or early in puberty may be significant in making a diagnosis. Basal metabolism tests are often essential as an aid to diagnosis as well as informative during treatment. Blood chemistry and other blood studies are at times essential. All these factors must be borne in mind in determining the type of obesity because of the bearing it may have on treatment.

Mention was made of exogenous obesity due, as stated, to excessive ingestion of food. This type of obesity is divided into two classes, one, the plethoric form and second, the anemic form. In the plethoric form the individual is well proportioned except for a protuberant abdomen.

The muscles are firm and the distribution of fat even. The consistency of fat is firm and not edematous. The appetite, as a rule, is good. These individuals usually present a healthy appearance with rosy cheeks and a soft skin. On examination, the heart beats are strong, the pulse firm and slow. If a study of the blood is made an increased concentration will be noted with an erythrocyte count that may reach 7,000,000 and the hemoglobin 120 per cent. However, in later years, the strain of the excessive weight produces its effect. The heart may show signs of decompensation, an irregularity or a dilatation resulting. The blood vessels may become tortuous and hardened indicating the onset of further circulatory changes. Cardiorenal changes may set in with a disturbance of the kidney function along with the cardiac signs mentioned. The urine may show hyaline and granular casts, also albumin and other urinary findings. The musculature shows a diminution in power. Ultimately, sexual changes set in, amenorrhea developing in the female and azoospermia in the male.

The anemic form of exogenous obesity differs decidedly from the one just described. Instead of being firm the adipose tissue is edematous. These individuals have a poor appetite and tire easily. They are pale, the circulation is poor and a cardiac enlargement may appear early; a reduction of the hemoglobin to as low as 30 per cent may be found.

Patients with exogenous obesity get about well, even with grace, at the start of their increase in weight but, as the weight increases they experience some difficulty in getting about, later becoming dyspneic even on slight exertion. Then an edema of the lower extremities may develop which results in a further handicap in locomotion. The obesity described thus far is due entirely to overeating and has no connection with an endocrine disturbance.

In endogenous obesity the adiposity is accompanied by a glandular disturbance. This disturbance may affect the individual by producing an increased appetite, by lessening the desire to work or by diminishing the power of combustion or metabolism. In any event, these patients present a decided tendency to obesity and are readily influenced by dietary indiscretions.

The first type of endogenous obesity to be considered is hypothyroidism in which there is an insufficient amount of thyroid stimulation. These individuals usually give a history of small appetites and yet show a persistent gain in weight. Associated with this is a lowered metabolism and lessened activity, both mental and physical. The distribution of fat is typical, there being a general diffuse, subdermal infiltra-

tion along with localized pads of fat, the cervical, nuchal, anklet and bracelet pads. Dermal changes are present, the skin being dry, thick and rough. The hair is dry, brittle, coarse, wiry and often falls out rapidly. The teeth show a tendency to decay and loosening. The tongue at times is large and thick.

When hypothyroidism is marked, a myxedema may appear which is an exaggeration of the above description along with other definite changes. The myxedematous face is expressionless, the appearance puffy and mask-like, the color waxy with apple-blossom cheeks, the eyelids are puffed, the lower lids baggy. There are supraclavicular pads and frequently the seventh cervical padding is very pronounced. Padding of the hands and feet is characteristically on the posterior surfaces. The obesity is, as described above, a diffuse, subdermal infiltration, affecting the entire body and is characterized by a nonpitting edema. The lower legs have a doughy puffiness. Due to the markedly lowered metabolism characteristic in these cases there is a profuse lowering of all vital processes resulting in such changes as bradycardia, constipation, lethargy, mental sluggishness, subnormal temperature with resulting sensitivity to cold and tolerance to hot weather. The speech is slow and monotonous, the voice may change to a coarser tone. Mental efforts meet with increased difficulty there being a progressive loss of memory and concentration. Physical exertions are reduced to a minimum because of lack of interest and also because of fatigue that results from even slight activity. In the female, menstrual changes are noted, menorrhagia being the rule, and amenorrhea present at times. Libido may be diminished or absent. This describes briefly cases of hypothyroidism from the mild to the extreme degree. We are concerned at this time principally with the type of obesity and its distribution, the other characteristics being added briefly as an aid to diagnosis. In this group, an extreme degree of obesity is not reached.

Patients with enormous obesity are associated with an abnormality of the pituitary gland. These cases are characterized by small facial features, small hands and feet and tapering fingers. The adiposity is principally in the mammae, mons and trochanteric regions, sometimes referred to as a torso adiposity, the distal extremities remaining free of fat. In other words, the location of the fat pads is the middle of the body, the breasts, abdomen, buttocks, thighs and upper arms being involved, while the face, forearm, lower legs and the areas just above the knee remain unaffected or at least comparatively so. This is in definite contrast to the universal adiposity of hypothyroidism.

The basal metabolism may be lowered. A roentgen ray study of the centers of ossification will show a delay of the union of the epiphyses. In the female the menses is scanty and in the male the distribution of hair is feminine in character. This type of obesity accounts for more than 50 per cent of all obesities.

One form of pituitary obesity is that known as basophilic adenoma, or Cushing's syndrome. It occurs as a rule in relatively young adults. It is a rapidly acquired adiposity confined to the face, neck, thorax and abdomen, the extremities showing no involvement. The face is round and florid, the breasts large and the abdomen protuberant and often pendulous. The shoulders have a tendency to become rounded. These patients usually become impotent sexually, amenorrhea developing in the female and impotence in the male. In the female a hypertrichiasis involving the face and trunk may result. There are other characteristics present in these cases; for example, hypertension and certain roentgen ray and laboratory findings, but I shall confine myself principally to physical findings with special reference to adipose distribution.

Another type of pituitary adiposity is that known as Frohlich's syndrome or adiposogenitalism. Some of the characteristic findings of this type of obesity have already been described; for example, the limited adiposity about the girdle region, the small facial features and the petit hands and feet. The trochanteric adiposity is especially diagnostic. Along with the characteristic features mentioned above is a delayed sexual development and, as a rule, a retarded general growth which completes the syndrome. This type of fat distribution differs markedly from a hypothyroidism, the difference having already been described. Hypothyroidism is often associated with inactivity and even stupidity, which is absent in a pituitary disorder. In hypothyroidism the sexual development is usually stimulated while in this condition it is retarded.

There is still another type of obesity which may be classified as due to a pituitary disorder, and that is the one caused by water retention. These patients give a history of a rapid gain in weight and present characteristics of pituitary adiposity. It is thought that this condition may be the result of a hyperactivity of the water hormone, one of the constituent hormones of the posterior lobe. If this is true, then this condition is a direct contrast to diabetes insipidus, the latter resulting from a deficiency of this hormone. These cases are found to be resistant to the usual anti-obesity methods of treatment and a definite response is obtained when diuretic measures are instituted to diminish the fluid.

There is a form of obesity due to a primary

hypogonadism, either as a result of castration or of a deficiency of gonadal activity. A diagnostic feature of this type of obesity is its late development, the adiposity occurring after the age of thirty. The earlier stage of this condition is characterized by a trochanteric adiposity without any other localized or general adiposity. This trochanteric adiposity is an accumulation of fatty tissue localized over the greater trochanter. If this accumulation becomes very great it may include the upper thigh. Later there is a generalized subdermal infiltration, especially involving the breasts and mons as well as the trochanteric region. The accumulation of fat over the mons may in time become so marked as to form an apron-like fold overlapping the vagina. In the male, the mammary development is marked and there is a definite girdle and trochanteric adiposity. The hair distribution is feminine in type and secondary sex characters are almost or entirely absent. Of course, the physical characteristics of eunichoidism are readily detected, as for example, the long, tapering fingers and toes, the increased length of the long bones, etc.

There are other forms of obesity, as *adipositas dolorosa* which, as the name implies, is characterized by painful and tender fatty areas. Another type is adrenal obesity. I shall not discuss these forms as they are seldom seen and would only tend to confuse the picture.

We have thus far described various types of obesity, uniglandular in type, and have withheld a description of the pluriglandular disturbances. A simple description of a pluriglandular obesity is a superimposing of characteristics of one type upon that of another. A thorough knowledge of the individual glandular characteristics enables one to diagnose the mixed disturbances. Pluriglandular disturbances are frequent; in fact more frequent than uniglandular ones. An accurate history as well as a thorough examination enables one to determine which gland was primarily involved and which secondarily.

The matter to be given consideration at this time is the treatment indicated in obesity; and the principal consideration should be given to the matter of diet. It is obvious that the object of the diet is to reduce the caloric intake. This should be brought about by reducing the carbohydrates and fats and allowing at least a moderate intake of protein, as lean meats, fish, eggs, etc. The bulk of the diet should consist principally of vegetables and, in the more stringent diets, the choice should be limited to the low carbohydrate vegetables, the so-called 5 per cent vegetables. The quantity of vegetables allowed is unlimited. Fruit is allowed but should be restricted to fresh fruit or unsweetened canned

fruit, allowing one piece of fruit or its equivalent at each meal.

In the markedly obese patients, the water intake should be limited as a considerable loss of weight can be brought about by this measure. Avoid water with the meals. This may result in a lessened consumption of food. Fluids should be taken at the end of the meal.

Alcoholic drinks should be limited because of the tendency to stimulate the appetite.

There are certain foods that satisfy the hunger for longer periods of time; for example, hard boiled eggs, meats and cheese. This may prove an aid to those who find it difficult to continue on a diet because of the extreme hunger.

Strict orders must be given patients to refrain from eating the more concentrated foods, as bread, cereals, butter, candy, ice cream, etc., and to accustom themselves to the limited foods allowed.

I do not believe that the markedly restricted diets, as the milk and banana diet, are satisfactory. There is no doubt that a rapid loss of weight is readily acquired but the diet is so far removed from the normal that there is difficulty in maintaining these restricted diets. Also, the patient is unprepared to follow a more rational diet later. Therefore, the object of a diet should be to give a balanced diet of a lowered caloric value, thus accustoming the patient to a balanced but restricted diet, not far removed from a normal diet.

Baumgarten² and Campbell³ have suggested that the diet should be high in protein and low in carbohydrate and fat, allowing approximately two grams of protein per kilo ideal body weight. They stressed that the diet should consist of large amounts of lean meats and vegetables, which prevent the discomfort of hunger while a weight loss was being effected.

To summarize the matter of diet one can say that at least a moderate amount of protein, as lean meats, fish, eggs, etc., can be allowed. The highly concentrated foods rich in carbohydrates and fats must be interdicted while the quantity of food can remain unchanged if the bulk is dependent on an increased amount of vegetables. Thus, we have a diet with sufficient protein to supply the body needs and enough bulk to satisfy the hunger. The patients accustom themselves to prefer foods that have less tendency to cause obesity, as 5 per cent vegetables and fresh, unsweetened fruits. Butter and fats must be reduced to a minimum. A certain basic diet adequate to maintain the weight desired must be maintained or the weight loss will return.

You will note that thus far no suggestion has been made to measure or weigh the food. This has been purposely avoided, because of

the resentment patients have to such close supervision of their diet. Most of the patients feel in excellent health and spirits and will not inconvenience themselves for any length of time. If, however, a diet of approximately 1000 to 1200 calories is allowed and this diet is well balanced, allowing a sufficient bulk to appease the appetite, they will feel more inclined to follow your suggestions.

For example, you may allow for breakfast a piece of fruit, an egg, a thin slice of bread or toast, a glass of skimmed milk and a cup of unsweetened coffee with milk. The noon meal can consist of a bowl of vegetable soup or a cup of fat-free clear broth, a moderate portion of lean meat such as veal, leg of lamb, white meat of chicken, round steak with the fat removed, shoulder steak, fresh tongue, either calf or beef liver, or a moderate helping of lean fish such as pike, perch, blue fish, cod, herring, halibut, oysters, mackerel, haddock, shrimp, lobsters or crabmeat. With the soup or broth and the choice of meat or fish, the meal is completed with a slice of bread, as many of the 5 per cent vegetables as desired, a piece of fresh fruit or fresh fruit salad and unsweetened tea or coffee. The patient must be instructed that the meat or fish cannot be fried but can be broiled or boiled. If the patient is employed and has difficulty in obtaining the meat or fish suggested, a sandwich of meat or fish can be substituted. The evening meal is essentially the same as lunch except that a low fat cheese, as cottage or farmer cheese, can be substituted for the meat, and skimmed milk may be added to the meal. This sort of diet will approximate 1000 to 1200 calories and can be used as a nucleus about which an adequate diet can be obtained.

With reference to the rate of loss in weight, a loss of 4 to 6 pounds a month as a rule is ample. Too rapid a loss results in weakness and the patient becomes alarmed. A slow reduction affects them very little and frequently is entirely unnoticed.

The amount of weight lost by diet alone is most often insufficient. A maximum loss is soon reached and the weight then remains stationary. Further aid by medication is needed to bring about the desired result. Bayer and Gray⁴ found that 72 out of 100 patients showed a loss of an average of 15 pounds in less than 4 months and remained stationary thereafter until medication was given to bring about a further loss.

There seems to be little difference in the amount of weight loss whether diet alone is given until a maximum loss is obtained and then medication given to complete the treat-

ment, or whether both diet and medication are started at the same time. I am inclined to feel that the former method is more rational because the patient is impressed with the necessity of a diet, while if medication is given at once they are inclined to rely to a great extent on this medication for the result. It must be frequently emphasized that the diet and not the drug is more important in bringing about a loss in weight.

As we know, the drug used most often to aid in weight reduction is thyroid. It is not only effective but, if used discreetly, is quite safe. It is well to begin with a small dose, for example, $\frac{1}{2}$ grain once or twice a day. If the patient is sensitive to this drug signs of overdosage become apparent almost at once. Some of the signs that may appear are nervousness, excitability, irritability, insomnia, palpitation, dyspnea, etc. In the female, frequently a change in the menstruation results, the flow becoming more scant or the interval prolonged. Other signs may be those of a nervous tension as an agitated demeanor, rapid and forceful heart action and tremor of the fingers, etc. When these signs of toxicity appear, the drug must be discontinued for a few days or longer. There need be no alarm as to the effect these reactions may have upon the individual as none of these reactions will remain after the effect of the drug has disappeared. The thyroid may then be resumed with a smaller dosage and under close observation. When the thyroid is first administered the patient should be observed at least once a week for at least one month, then less often. After approximately six months of supervision, a check-up should be made every three or four months. The dose of thyroid that should ultimately be given depends entirely on the type of case and the results obtained. If at any time the patient becomes ill with a temperature, the drug should be discontinued. If the patient is undergoing undue strain, either mental or physical, the dose should be reduced accordingly. It may be necessary to have the patient continue on thyroid for many years, and even for life, and the dose regulated according to the response desired. It is well to remember that thyroid substance is not tolerated nearly as well by those with an extremely low basal metabolism as by one with a mild reduction. It seems that patients with low basal rates are so accustomed to their lowered metabolism that any attempt to elevate this metabolism to near normal will produce signs of hyperthyroidism. Therefore, when thyroid is given to these patients, more caution should be used. Furthermore, one should not be guided solely by the result of the basal metabolism before deciding to

give thyroid. The result of the metabolism must be considered along with the physical findings before reaching a decision. If the patient is obese and other findings are present to indicate a necessity and a tolerance for the drug, it should be tried even if the basal metabolism rate is normal or near normal. Of course, we know that our greatest response when using thyroid is in cases of hypothyroidism.

A drug that was used to a great extent in the place of thyroid was dinitrophenol, a powerful metabolic stimulant. It seems that this preparation was popularized almost over night. However, when serious toxic symptoms were reported which resulted occasionally in blindness and even fatally, the popularity began to wane and it is at present condemned by most men. It is needless to consider this drug further when we have as safe a drug as thyroid which produces identical results as dinitrophenol without any of its hazards.

Cases of obesity due to excessive fluid intake or to a water retention must obviously be treated by limiting the intake of fluid along with the diet. If this fails to produce a loss in weight, diuretic measures must be instituted. Baumgarten² suggested the use of potassium chloride in the place of sodium chloride because of the diuretic effect produced. However, the taste of this drug makes it almost impossible to use in the place of salt. The use of ammonium salts and mercurials is effective in producing diuresis and a loss in weight. Rowntree and Brunsting⁵ reported two cases of obesity which were due to water retention. These individuals failed to respond to vigorous anti-obesity measures. Diuretic measures were instituted and a rapid loss in weight followed, the rate of loss being far too great to be attributed to a loss of adipose tissues.

Our greatest difficulty in reduction lies in cases of pituitary obesity. This type is far more resistant to anti-obesity measures than any of the others. Thyroid is far less effective in these cases. The use of pituitary preparations have proved unavailing. Lurie⁶ recently reported two cases of Frohlich's syndrome, which were given 2 grains of oral pituitary substance three times daily and showed an excellent response to this therapy. The obesity was reduced and the genitalia developed. This report is surprising because of the excellent results obtained by such small dosages. Englebach expressed very little faith in such products but added that if they are to be tried they should be used in 10 to 20 grain doses three times daily. Thus far, we have found that we must depend on dietary restrictions principally to obtain a reduction in weight in cases of pituitary obesity, and with

little or no help from the use of drugs. Cases of basophilic adenoma require the aid of roentgen ray therapy along with the diet.

Exercise, whenever possible, should be encouraged, the type varying with the type of individual. Swimming is considered excellent. Other exercises as horseback riding, walking, gymnasium work, etc., are all good for reducing.

Reduction is contraindicated in the aged unless under close supervision. A reduction in weight is beneficial to those suffering with a cardiac disease or hypertension. Patients with a chronic disease as arthritis are benefited by reducing.

This concludes the discussion on obesity. I have tried to give briefly a description of the various types of the more common obesities. With reference to treatment, the importance of the diet in all types of obesity must be stressed and the patient must be impressed with this importance. Thyroid will be found a great aid in cases of hypothyroidism and in all cases primarily or secondarily involved with a thyroid deficiency. Pituitary adiposity will be found more resistant to treatment and respond feebly to thyroid medication, and may in fact be unaffected by it. Our greatest percentage of failures among cooperative patients will be found in the latter group of cases.

5700 Easton Avenue.

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PROTAMINE INSULIN IN JUVENILE DIABETES: CLINICAL OBSERVATIONS

H. R. Drysdale, Rochester, N. Y. (*Journal A. M. A.*, April 10, 1937), is satisfactorily controlling ten juvenile cases of diabetes with protamine insulin, all insulin being given before breakfast. Marked subjective improvement has been the rule in all cases. Hypoglycemic reactions with protamine insulin, while comparatively rare, may be insidious in onset and very severe. No local subcutaneous reactions have been observed from massive doses of protamine insulin injected at a single site. Protamine insulin seems to prevent diabetic acidosis in infections, although profuse glycosuria may be present. There is some evidence that protamine insulin may tend to raise the renal threshold in certain cases. Protamine insulin is highly efficacious when used in cases of "insulin wasters."

IMPERFORATE HYMEN WITH HEMATOCOLPOS

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AND

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Since the occurrence of congenital imperforate hymen with hematocolpos is seldom encountered in practice or in the literature, we were prompted to report this case.

REPORT OF CASE

E. S., school girl, aged 16, on November 3, 1936, complained of a cramp-like pain in the lower abdomen, backache, headache and a frequency of urination. These symptoms, together with a feeling of fullness and bulging about the vulva, became so marked that a physician was consulted. She stated that there had been a gradual enlargement of her abdomen the past year and that she had never menstruated. A diagnosis of imperforate hymen was made and the patient hospitalized.

A physical examination revealed a nervous, somewhat hysterical young woman who was suffering from agonizing lower abdominal pain simulating labor pains. There was a smooth moderately soft symmetrical enlargement of the abdomen, the upper border extending to the umbilicus. Vulva examination revealed an imperforate hymen which was bulging, tense and of a pale blue color protruding between the labia. On percussion of the abdomen a wave of fluctuation was transmitted downward to the vulva. The breasts were normal as well as all other physical findings.

Past History.—The patient had been married and her husband divorced her after three weeks. No serious illness. No history of vaginal trauma or infection. For the last two years she has experienced the usual symptoms accompanying menstruation, such as lower abdominal cramps with backache but without vaginal bleeding. On several occasions in the last two years the pain was so severe that a hypodermic of morphine was administered. The imperforate hymen was unrecognized at that time as a vulval or rectal examination was not made. Otherwise history was negative.

Operation.—Under ether anaesthesia a crucial incision of the hymen released approximately three and one half quarts of rather thick, urine colored, odorless accumulated menstrual fluid which gushed through the incision due to extreme internal pressure. The hymen measured three-sixteenths of an inch in thickness. The abdominal distension soon subsided behind the symphysis with the release of the accumulated blood. A gauze pack drain was inserted. The patient made an uneventful recovery and was discharged on November 18, 1936.

Pathological Report.—Dark red, thick menstrual fluid had a specific gravity of 1.043. Microscopically the fluid contained red blood cells of various degrees of degeneration, round cells and fat globules with much granular debris. The urine contained a trace of albumin and many pus cells. Kahn test negative.

Five weeks following the operation the patient menstruated apparently normally; duration three days without pain or the passage of clots.

DISCUSSION

Imperforate hymen is usually a congenital condition in which the hymen is a thick, tough, resistant membrane, and in which the upper vagina, uterus and tubes are functionally active. However, Graves¹ states that imperforate hymen in childhood may occur as a result of plastic healing from trauma or inflammatory processes in which the delicate surfaces of the hymen are glued together. The condition is rarely recognized until puberty when the failure of menstruation occasions the examination which at once reveals the anomaly. It may be recognized in young children, however, as a bulging white sac due to accumulation of mucus beneath the urethra and is more prominent when the child cries. A hypersecretion of uterus at birth is not an unusual phenomenon. It is produced by the action of placental agent of the mother on the infant's uterine mucosa. After each menstruation the secretions are poured into the uterus and vagina. The more fluid parts are absorbed leaving a thick tarry, chocolate colored substance. After a few years the secretion accumulates to such an extent that the pelvis is filled forming a bulging convex tumor protruding between the labia. The retained blood often distends the uterus (hematometra) or may distend the tubes (hematosalpinx). The most common complications are toxic symptoms from absorption of accumulated blood or peritonitis from infection.

COMMENT

A review of the literature reveals a scarcity of reported cases.

Up to the year 1891 there was a total of thirty-six collected cases of imperforate hymen, and Calvin and Nichamir² state that there were twenty-eight authentic cases in the literature since 1917.

The diagnosis of imperforate hymen is frequently overlooked due to the fact that a rectal or vaginal examination is not made when the patient is first seen.

Subsequent menstruations following imperforate hymen operations are usually normal and regular.

SUMMARY

A case of congenital imperforate hymen with hematocolpos is presented.

Imperforate hymen is usually not diagnosed until puberty or later.

Medical Arts Building.

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MAY, 1937

EDITORIALS

THE CAPE GIRARDEAU SESSION

For the first time in its history the Missouri State Medical Association will meet in Southeast Missouri. On May 10, 11 and 12 the Association will convene in Cape Girardeau and the activity of the committees in charge forecasts an excellent meeting.

All sessions of the General Meeting and of the House of Delegates will convene in Academic Hall of Southeast Missouri State Teachers College. The Council will hold a luncheon meeting on Monday noon at the Marquette Hotel and will meet on Wednesday afternoon following the session of the House of Delegates at the College. The House will convene Monday morning, on Monday afternoon at 4 o'clock and on Wednesday at 2:45 p. m. Scientific sessions will be held Monday afternoon and on Tuesday and Wednesday.

The scientific program for the Session appears on page 179 of this issue.

The Maternal Welfare Committee will hold its annual dinner meeting on Monday evening at the Marquette Hotel. All members are invited to attend this session.

Secretaries of component societies will be guests of the Association at a dinner on Tuesday evening at the Idan-Ha Hotel. The Cape Girardeau County Medical Society will be host to all members at an entertainment at the Cape Girardeau Country Club on Tuesday evening following the public meeting.

Other special meetings will be a luncheon on Tuesday noon at the Marquette Hotel for men interested in eye, ear, nose and throat work; a luncheon meeting on Tuesday at the Colonial Tavern of alumni of the University of Missouri School of Medicine, and a luncheon meeting of alumni of Washington University Medical School on Tuesday noon at the Idan-Ha Hotel.

Scientific and commercial exhibits will be on display in Academic Hall of the College.

The golf course at the Cape Girardeau Country Club will be open to members without charge except for caddy fees.

Members who drive to and from sessions in Cape Girardeau will find parking space in the rear of Academic Hall, entering from Pacific Street and leaving by Henderson Street. Two rear entrances to the hall are convenient from the parking space.

The Kentucky Derby will be run at Louisville on Saturday, May 8. As some members may plan to attend the Derby and go to the Annual Session from Louisville, the highway instructions are given. Mileage from St. Louis to Louisville is 270 miles, following highway 50 to Vincennes, Indiana, and 150 into Louisville. The mileage between Louisville and Cape Girardeau is 240 miles and the route is as follows: Leave Louisville on 62; at Evansville go south on 41 for thirteen miles to Henderson; from Henderson to Morganfield on 60; follow 56 to the Ohio River and after crossing the river continue on 13 to Vienna; follow 146 into Cape Girardeau. It is 143 miles from St. Louis to Cape Girardeau on route 61. On the Illinois side of the Mississippi the route is 13 to Belleville; 159 to Red Bud; 3 to Chester; 150 to the turn across the Mississippi into Cape Girardeau.

BIRTH CONTROL NOT LEGALIZED

The headquarters of our Association as well as the secretary of each of our constituent county societies are in receipt of a letter signed by Margaret Sanger, president of the National Committee on Federal Legislation for Birth Control, Washington, D. C. That carefully written communication distorts a recent decision of the United States Circuit Court of Appeals for the Second Circuit. The letter reads into that judicial mandate a conclusion which is nowhere to be found, even by implication, in the original. This pernicious attempt to make it appear that birth control has at last been legalized throughout the country is characteristic of the misleading representations likely to spring from too ardent champions of an unaccepted cause.

There has never been any question as to the right of the individual physician to prescribe contraceptive measures for individual patients deemed to require such treatment. The matter of attendance of the patient at office or dispensary, contrary to Mrs. Sanger's intimation, has never entered into the question. The type of contraceptive to be recommended has never been questioned. Hence, the statement in her letter that "now contraception may take its rightful place in preventive medicine and public health" is utterly devoid of meaning. Con-

traception has always enjoyed its rightful place in preventive medicine and public health. The so-called Comstock Law passed by the Congress in 1873 was designed for the suppression of trade in articles intended for immoral use. It seems clear that it was never intended to limit the prerogative of the physician to prescribe for his patient in accordance with his best knowledge and belief.

But, to return to the decision which prompts the glaring headline devised by Mrs. Sanger and her committee, "Now Birth Control Is Legal." In November, 1936, the United States Court of Appeals for the Second Circuit decided that an individual physician had the right to import for use in his practice a certain type of pessary designed to prevent conception in selected, individual patients. To quote from a recent editorial in the *Journal of the American Medical Association*,¹ "... Physicians who desire to import pessaries for contraceptive purposes from Japan or other countries, through Connecticut, New York or Vermont, within the second judicial circuit of the United States, may do so. Physicians who desire to import contraceptive devices and preparations through ports elsewhere than in New York, Connecticut and Vermont cannot rely altogether for protection on the decision of the circuit court of appeals for the second circuit; outside its own circuit its decision is not binding but is only of persuasive influence." Nothing whatever is said, nor indeed was the question raised, as to the legality of active advocacy of contraception, of forcing this method for the prevention of pregnancy, upon the largest possible number of persons. That, it seems to us, is the crux of the Sanger efforts. The profession has not been given, nor did it ever possess, the privilege of openly advocating measures having a diminishing effect upon the birth rate. If, in the exercise of his professional duties the physician finds a necessity for advising against future pregnancy he is quite within his rights in recommending such specific measures as seem advisable. But we find no reason even to suspect that he would be benefited or that the public welfare would be advanced by active instruction of each person in contraceptive practices.

Indeed, in a recent editorial² we had occasion to point out that the general adoption of contraceptive practices would be attended by consequences of so grave a nature that the proposal was not to be countenanced. We stated that "in a world of rapidly changing economic and political organization there are many tangible and intangible factors other than contracep-

tive practice that determine the birth rate and the course of racial destiny." Mrs. Sanger is, doubtless, motivated by the best of intent; it would seem that her purpose is to lessen the suffering and privation of persons in the lower economic strata of society by burdening them with fewer children. Yet the outcome of her proposal, carried to its ultimate conclusion, is very likely to be racial disintegration, even extinction, assuming for the moment that her scheme is feasible. But this, too, is beside the point. Once again we return to the statement made earlier in this discussion, that the letter sent by Mrs. Sanger to our county societies is misleading and not germane to the case actually at issue before the court.

Let us once more urge that county societies desiring to be informed upon the puzzling question of contraceptive practice request the headquarters of the State Association to send them a speaker selected by the Committee on Postgraduate Work. Let them not again succumb to the tempting lures thrown out by private persons or organizations interested only in advancing their own pet schemes.

ST. LOUIS CLINICS SPRING CONFERENCE

The program for the Spring Conference of the St. Louis Clinics to be held from May 24 to 29 contains seventy-five demonstrations. The subjects are diversified and cover all the various branches of medicine with emphasis given to those problems which confront the general practitioner.

An added attraction will be presentations by officers of the Army and Navy. While these deal with problems met in service, they offer a variation of extreme interest.

Members of the Missouri State Medical Association may secure detailed information by addressing the Secretary, St. Louis Clinics, 3839 Lindell Blvd., St. Louis.

PHYSIOLOGIC MANAGEMENT OF ACUTE CEREBRAL TRAUMATA

Over a quarter of a billion automobiles are now in use in the United States, one for every five persons in the country. While this number of cars may not approach the Utopian ideal of the Hoover administration it has already produced a considerable problem for the medical profession. It has brought about a tenfold increase in the number of deaths from automobile accidents in the two decades between 1911 and

1. Contraceptive Advice, Devices and Preparations Still Contraband, J. A. M. A. **108**:1179 (April 3) 1937.

2. Endorsement of Propaganda, J. Missouri M. A. **34**:57 (February) 1937.

1930. The number of persons not fatally injured cannot even be guessed. Of the large number maimed by vehicles those sustaining trauma to the skull and its contents form a considerable portion. In addition to the injury so wrought a considerable number suffer head traumata from other causes, notably blows and falls. Woodhall¹ in his study of three hundred cases of cerebral injury found that over half of them resulted from vehicular mishap, a fourth from falls.

Recent years have seen the introduction of a vast number of medicinal agents for intravenous, hypodermic or rectal instillation for the control of the pressure symptoms of cerebral accident. There have been those who advocate the questionable method of lumbar puncture to relieve the increased tension. It has been assumed that if something were not done the increasing pressure developing within the rigid cranial vault would bring about paralysis of the vital centers and death. Woodhall raises the question as to whether the introduction of chemicals which act by virtue of their ability to set up osmotic disturbance in already devitalized tissue may not actually add insult to injury. Perhaps, he reasons, it were better to develop a new physiologic approach as a guide to therapy for cerebral accident.

He divides cerebral injuries into four types on the basis of certain easily measurable disturbances in physiologic function. He did not seek roentgenographic examination in over a third of his patients. From a medico-legal as well as diagnostic point of view this would not seem an acceptable omission. Nevertheless his results illustrate that much information may be gleaned from simple hourly measurements of pulse, temperature and respiration together with observation of the state of consciousness. These measurements serve as an index of the degree of reaction compensation achieved by the brain, as a guide to surgical interference.

Type I injuries are characterized by an instantaneous loss of consciousness followed in a few minutes by a varying period of drowsiness or a return to complete consciousness. The rectal temperature may reach a maximum of 101 F. declining to normal within seventy-two hours. The pulse rate parallels the temperature curve. There is no, or at most a transient, disturbance in the respiratory rate. Unless a depressed fracture requires raising the surgeon plays only a passive part in the management of this type of injury. Woodhall expresses the opinion that patients in this group recover despite the administration of chemicals designed to lower intracranial pressure. Because such agents may pro-

duce further damage, they are not to be routinely employed.

Type II injuries are characterized by diverging fever and pulse curves, the bradycardia appearing either early or late. The respiration may become abnormal, either in rate or depth. As long as the persistent bradycardia is regular, the rectal temperature not above 101 F. and the state of consciousness unchanged, the patient is compensating for the increased intracranial pressure. The slightest change in these characteristics, or the appearance of convulsions indicates that the limit of compensation has been reached, that active treatment is urgently required. Whether it consists of dehydrating agents or, more probably, surgery will be determined by the individual case.

Type III injuries are characterized by a high, unremitting fever with a corresponding or somewhat less marked tachycardia. There is a profound disturbance of consciousness and usually an abnormality of the respiration. The picture here presented is that of an uncompensated increase in intracranial pressure; surgery is almost always required. The mortality rate without intervention is two out of three; with it, one out of two. Except in the event of localizing signs, right subtemporal decompression (because it uncovers a silent area) is the operation of choice.

Type IV injuries hardly need consideration as they are characterized by rapidly rising pulse and temperature curves as well as rapidly increasing coma. These phenomena indicate impending death. Treatment is without avail.

Neurologic signs were noted by Woodhall in such a small percentage of his cases as to have no diagnostic or therapeutic significance. For example, in only fourteen patients was the pupil dilated on the side of the lesion while in three it was constricted on that side. A Babinski sign was noted in only seventeen of three hundred cases. Less than half of the patients suffered from drowsiness or vomiting.

While only time and further experience can prove the reliability of the Woodhall technic his report possesses the merit of a simple plan for the control of the difficult problem presented by cerebral injury. It affords the practitioner exceedingly specific guidance. It may save some patients from needless therapeutic efforts since the greater portion of them will recover without treatment. Woodhall's mortality experience may be summarized as follows: In all, 19 per cent; in Type I injuries, 2 per cent; in Type II injuries, 25 per cent; in Type III injuries, 67 per cent; in Type IV injuries, 100 per cent. Type I injuries constituted over two thirds of all cases hence a policy of watchful waiting with hourly determination of temperature, pulse and

1. Woodhall, B.: *Acute Cerebral Injuries*, Arch. Surg. 33:560, 1936.

respiration together with observation of the state of consciousness of the patient, perhaps with roentgenograms after the subsidence of the acute phase, is to be considered for the management of the patient suffering from acute trauma to the skull and brain.

THERAPY OF TUBERCULOUS CAVITATION

The primary aims of therapy in the patient with tuberculous cavitation of the lungs are to produce obliteration of the cavity and a sputum free of the infectious germs of the disease. The first is necessary to the well-being of the patient, the second to the well-being of the community. The sooner this happy combination of results is achieved the less will be the economic and social loss arising from the illness.

In the closing years of the last century Forlanini, an Italian physician, invented a method by which air or other gases could be introduced into the pleural space. The method was little employed until recently when it was rediscovered as an important adjuvant to the control of many pulmonary diseases, even extending to the study of abdominal and cranial pathology. The good results obtained from the employment of artificial pneumothorax led naturally to the development of other technics designed to bring about compression of lung tissue which could not be collapsed by it alone. Phrenicectomy and phrenic exeresis raised and immobilized the diaphragm, thus causing collapse of the lower portion of the lung. Section of scalenus muscles, of the intercostal nerves and muscles served to increase the effectiveness of collapse. Section of dense pleural bands (pneumolysis) which held lung lobules open brought about collapse of these areas. Finally, in the group of cases in which less radical measures did not suffice, the formidable operation of thoracoplasty produced an irrevocable collapse of the lung. These procedures all have as their object the splinting of the affected part. They serve to permit the uninterrupted advance of natural methods of healing. All except the last possess the virtue that they do not indubitably destroy the future usefulness of the lung.

Collapse therapy is a valuable therapeutic procedure in all forms of tuberculosis but the existence of no less than nine different methods of achieving it are apt to leave the practitioner in a quandary. No longer is the treatment of tuberculosis the simple one of putting the patient to bed, prescribing a cough mixture and seeing to it that he receives a nutritious diet. That this form of treatment is thoroughly unsatisfactory is brought out in the occasional complaint of the sanatoria that of the new patients

sent to them nearly two thirds are in the advanced stages of the disease. The expected mortality in this group varies between 60 and 80 per cent in one year. Yet as late as 1933 little more was done for the patient than could be done by the conscientious practitioner at home. For example, McMahon and Kerper¹ after studying nearly three hundred patients with cavitation advised that continued bed rest was preferable to indiscriminate collapse; they advanced this conclusion in the face of the fact that only one fifth of their patients showed spontaneous healing, a smaller number than showed failure to improve; that only a little more than a third eventually showed closure of the cavity.

This report is to be contrasted with that of Leslie and Anderson² who employed the various forms of collapse therapy early and intensively in most of their 1100 patients. For the purpose of this discussion consideration will be accorded only to those 301 patients still in residence at the Michigan State Sanatorium at the time their report was compiled. This is done because as the method evolved and more experience was gained it was to be expected that better results would follow; this group really represents the application of the skill and knowledge obtained in the management of the 800 earlier patients. Of the three hundred patients still in residence 97 per cent received some form of lung collapse. Even thirteen of the fifteen patients whose cases were considered minimal were treated by collapse. Four fifths of these patients had cavities; it was possible to produce cavity obliteration in 72 per cent of them and to obtain a favorable result in 95 per cent of the entire group. The surpassing excellence of this analysis must be considered in the light of generally less favorable outcomes with less aggressive forms of therapy.

Likewise, conversion of a positive to a negative sputum was effected in 70 per cent of all cases. Even in the group of far advanced cases a negative sputum eventuated in two thirds of the patients. Leslie's and Anderson's results are such as to recommend them to the thoughtful perusal of physicians concerned in the management of tuberculosis. They emphasize the need of expert care, the need for experience that the proper method of collapse may be chosen, the need for institutional treatment.

One general conclusion to be reached from the study of their figures is that too long a time elapses between the diagnosis of tuberculosis and the entrance of the patient into the sanatorium specifically designed to care for

1. McMahon, B. T., and Kerper, E. H.: The Healing of Tuberculous Cavities, *Am. J. M. Sc.* **186**:170, 1933.

2. Leslie, G. L., and Anderson, R. S.: Intensive Collapse Therapy in Pulmonary Tuberculosis, *Am. J. M. Sc.* **193**:149, 1937.

him. In this connection it is worth while repeating that in many persons the early symptoms of tuberculous infection arise in the intestinal tract, manifest themselves in anorexia, a vague malaise, a gradual loss in weight, perhaps a little afternoon fever; only later do cough and expectoration appear. Since Leslie and Anderson have called attention to the splendid results to be achieved by the judicious employment of modern methods of collapse therapy it is to be hoped that patients will be sent to the sanatorium earlier, that two thirds of them will be admitted while they are yet in the minimal instead of in the advanced stages of the disease. Earlier diagnosis together with earlier institutional entry will better fulfill the primary aims of therapy in the disease, i. e., to bring about closure of cavities, even to heal the lung before cavity formation has occurred and to convert positive into negative sputa that there may not be needless exposure of noninfected persons to the ravages of the bacillus of Koch.

THE AMERICAN COLLEGE OF PHYSICIANS

The twenty-first annual session of the American College of Physicians, which convened in St. Louis April 19 to 23, brought many noted clinicians to St. Louis. Approximately 2100 physicians attended the meeting. Scientific sessions were held in the afternoons of each day at which papers were presented. In the morning of each day several programs were presented simultaneously including symposia at the Jefferson Hotel and clinics at the various hospitals. Several round table discussions were held each noon.

At the annual banquet of the College on April 22 Dr. Logan Clendening, Kansas City, delivered an address on "American Medical Shrines."

Among physicians upon whom fellowships were conferred at this session were Dr. Paul Forrey Stookey, Kansas City, and Drs. Anthony B. Day and Llewellyn Sale, St. Louis. Fellowships were conferred at a session on Wednesday evening at which the John Phillips Memorial Medal for 1936-1937 was conferred on Dr. Richard E. Shope, Princeton, New Jersey, for his work on influenza. The president's reception followed this session.

A pilgrimage was made to the grave of William Beaumont on Thursday noon. The Beaumont collection was open for inspection each day during the session in the library of Washington University School of Medicine.

Dr. James H. Means, Boston, was installed as president at the annual business meeting on

Thursday afternoon. Dr. Ernest B. Bradley, Lexington, Kentucky, was president during the St. Louis session. Officers elected for the ensuing year are: President-elect, Dr. William J. Kerr, San Francisco; first vice president, Dr. David P. Barr, St. Louis; second vice president, Dr. G. Gill Richards, Salt Lake City, and third vice president, Dr. William Gerry Morgan, Washington, D. C.

BILLS IN THE LEGISLATURE

The Committee Substitute for Senate Bill No. 3, providing for the establishment of a State Cancer Hospital in or near Columbia for the treatment of cancer and allied diseases, has passed the Senate and is now in the House Committee on Public Health.

Senate Bill No. 76, providing for liens in favor of public and charity-supported private hospitals, clinics and other institutions for the care of the sick, who furnish care, treatment and maintenance to persons injured by the negligence or wrongful acts of others, has been reported "Do pass" and is now on the Senate Calendar for perfection.

Senate Bill No. 90, clarifying our statutes with reference to the care of crippled children so as to permit Missouri to participate fully in the allocation of Federal funds, has passed both the Senate and the House and is now before the Governor for his consideration.

Senate Bill No. 192, amending the Missouri laws with reference to narcotic drugs so as to be in harmony with the Federal Narcotic Act, called the Uniform Narcotic Drug Act, has been reported by the Senate Committee on Public Health "Do pass" and is now on the calendar for perfection. House Bill No. 276, the Uniform Narcotic Drug Act bill in the House, was reported out of the House Committee with recommendation of "Do not pass."

House Bill No. 324, relating to the sterilization of certain inmates of state hospitals and the Colony for the Feeble-minded and Epileptic, was defeated by the House on the third reading on April 15.

House Bill No. 265, raising the educational qualifications of pharmacists, was perfected in the House on April 15 and is now on the calendar for third reading.

House Bill No. 387 makes it unlawful to sell eyeglasses except on prescription of duly licensed physicians or duly licensed optometrists and relates to advertising free examinations of eyes and sterilization of eyeglasses. The House Committee recommended rewriting the bill and it was re-referred to the House Committee on Public Health on April 27.

Senate Bill No. 135, amending the present medical practice act by requiring applicants for medical licensure to be citizens of the United States and be able to read and write the English language, also that applicants shall have completed a two year college or university course in the subjects of physics, chemistry and zoology, is still in the Committee on Public Health.

NEWS NOTES

Dr. Ralph Major, Kansas City, was a guest of the Wayne County Medical Society at Detroit on March 29 and presented an address on "Nephritis and Nephrosis."

Examinations for medical licensure will be held by the Missouri State Board of Health on June 3, 4 and 5 at the School of Medicine of St. Louis University, St. Louis.

Dr. Edward H. Skinner, Kansas City, will be a guest of the Minnesota State Medical Association at its annual session in St. Paul, May 2 to 5, and will speak on "Reflections Upon the Roentgenology of Fractures."

The Trudeau Club of St. Louis met April 27 at the St. Louis Medical Society Building. A symposium on "The More Common Extra-Pulmonary Manifestations of Tuberculosis" was presented.

Dr. Quitman U. Newell, St. Louis, delivered the Centennial Address at the University of Louisville Medical School at the centennial celebration by alumni of the school. He spoke on "Cancer of the Uterus."

Dr. John R. Caulk, St. Louis, delivered the annual address at Vanderbilt University, Nashville, April 19, on "Tumors of the Renal Pelvis and Ureters." The address is sponsored by the Phi Beta Pi Fraternity.

Drs. Quitman U. Newell and John R. Caulk, St. Louis, were guests of the Perry County (Illinois) Medical Society at DuQuoin, Illinois, on March 4. Dr. Newell spoke on "Common Methods Employed in the Treating of Gynecological Patients," and Dr. Caulk spoke on "Common Methods Employed in Treating the Genito-Urinary Patient."

Dr. Willard Bartlett, Sr., St. Louis, was a guest of the Saline County (Illinois) Medical Society at Eldorado, Illinois, on March 26 and presented a talk on "Goiter As Pertaining to the General Practitioner."

The American Board of Ophthalmology will conduct an examination in Philadelphia on June 7 and in Chicago on October 9. All applications and case reports, in duplicate, must be filed at least sixty days before the date of examination. Dr. John Green, St. Louis, is secretary of the Board.

Drs. Lee Pettit Gay, St. Louis, and Herbert J. Rinkel, Kansas City, were guests of the Tulsa Medical Society at Tulsa, Oklahoma, on March 22. Dr. Gay spoke on "Peptic Ulcer; A New Etiological Concept," and Dr. Rinkel discussed "The Importance of Minor Pollens in the Treatment of Hay Fever."

Dr. Adrien S. Bleyer, St. Louis, will appear on the program of the annual convention of the American Association on Mental Deficiency which meets in Atlantic City, May 5 to 8. His subject will be "Maternal Age and Mongolism, a Study of 3000 Cases." Dr. George A. Johns, St. Louis, will open the discussion of a paper entitled "Consistency in Test Performance Pattern of Mental Subnormal Subjects" which will be read by Dr. Elaine F. Kinder, Thiells, New York.

Rev. Alphonse M. Schwitalla, S.J., dean, St. Louis University School of Medicine, will present an address on "The Child and the Physician" at a public health meeting to be held in St. Paul, Minnesota, on May 4 in connection with the annual session of the Minnesota State Medical Association. He will also appear on the program of the Congress of Allied Professions to be held in St. Paul on May 3 in a discussion of "Suggested Solutions to America's Health Problems."

To accommodate the various research divisions of the Abbott Laboratories and better coordinate their activities, a new research building is now being erected in North Chicago. The building will be of modern brick construction comprising three stories and basement with an attached auditorium. The new structure will house the library and all the research divisions at North Chicago except the pharmacologic division which will remain in its present adjacent quarters. Occupancy is expected in the fall of this year.

Dr. Quitman U. Newell, St. Louis, presented an address at the Municipal Auditorium, Kansas City, on March 15 under the auspices of the Missouri Society for the Control of Cancer. His subject was "Responsibility of the Public in Cancer Control."

A Drinker Respirator for use with nonambulatory patients was recently purchased by the University Hospitals of the University of Missouri, Columbia. This is the only respirator for use in the state except in Kansas City and St. Louis. Physicians with patients who might be benefited by the Drinker Respirator are invited to correspond with the University with the view of having patients treated at Columbia. Address communications to Dr. Wm. J. Stewart, Director, State Crippled Children's Service, Columbia.

The St. Louis Medical Society celebrated its hundredth anniversary on April 5, 6 and 7 with sessions at the St. Louis Medical Society Building on the first two evenings and a banquet at the Jefferson Hotel on the last evening. Between five and six hundred attended each session and more than a thousand attended the banquet. Addresses covering the history and accomplishments of the Society were presented and scientific work of members of the Society and historical data were on exhibit in the Society building. The celebration drew many visitors from outside of St. Louis. The Society received much praise for its accomplishments and for its celebration of the culmination of its first century.

The Kansas Medical Society will have several members of the Missouri State Medical Association as guest speakers at the annual session to be held in Topeka, Kansas, May 3, 4, 5 and 6. Dr. Herbert J. Rinkel, Kansas City, will speak on "The Diagnostic Problem in Food Allergy" and "Allergy in Children." Dr. William M. Ketcham, Kansas City, will present papers on "Treatment of Endocrine Diseases in Childhood" and "Hypertensive Heart Disease." Dr. Earl C. Padgett, Kansas City, will discuss "Management of Injuries of the Face and Jaws With Special Reference to the Common Automobile Injury." Dr. J. Albert Key, St. Louis, will speak on "New Methods of Treatment of Fractures of the Hip" and "Treatment of Elbow and Wrist Fractures." Dr. Meyer Wiener, St. Louis, will discuss "Treatment of Corneal Ulcers," "Surgery of the Tear Sac," "Progressive Myopia," "Limitations in Ophthalmology for the Man in General Practice," "Surgery of Glaucoma," and "Medical Ophthalmology."

The American Board of Ophthalmology is preparing for a preparatory group of prospective candidates for its certificate, the plan being to assist physicians who wish to study ophthalmology so that they may become acceptable as candidates for examination and certification when they have completed the requirements. Any graduate or undergraduate of an approved medical school is eligible to make application for membership in this group. Candidates so applying will be notified officially by the secretary when the Board has accepted their applications. If accepted, data will be sent concerning ethical and educational requirements. Syllabuses and other information will be made available to them. Information and advice will be available to members in this group through preceptors who are members or associates of the Board. Members of the preparatory group must keep a summarized record of their activities, two copies of which will be sent to the secretary in January of each year and will be incorporated in the final application for examination and certification. The fee for application for membership in the preparatory group will be \$10 which will be deducted from the \$50 required of every candidate for examination.

Schedule of the Refresher Courses in Obstetrics and Pediatrics that are being given at present is as follows:

PEDIATRICS

Councilor District 29 (Barton, Jasper, Newton and McDonald counties) on Mondays, at the Connor Hotel, Joplin, April 5, 12, 19; May 3, 17, 24, 31; June 7.

Council District 28 (Barry, Christian, Lawrence, Stone and Taney counties) on Tuesdays, at the City Hall Auditorium, Monett, April 6, 13, 20; May 4, 18, 25; June 1, 8.

Councilor District 31 (Green, Webster, Dallas, Polk and Hickory counties) on Wednesdays, at the Public Library, Springfield, April 7, 14, 21; May 5, 19, 26; June 2, 9.

Councilor District 27 (Douglas, Howell, Oregon, Texas and Wright counties) on Thursdays, April 8, 15, 22; May 6, 20, 27; June 3, 10.

OBSTETRICS

Councilor District 10 (Macon, Randolph, Monroe and Chariton counties) on Mondays, at the Security Benefit Hall, Moberly, April 5, 12, 19; May 3, 17, 24, 31; June 7.

Councilor District 6 (Adair, Schuyler, Knox and Sullivan counties) on Tuesdays, at Kirk Auditorium of the State Teachers College, Kirksville, April 6, 13, 20; May 4, 18, 25; June 1, 8.

Councilor District 5 (Clark, Scott and Lewis

counties) on Wednesdays, at the Canton Community Hospital, Canton, April 7, 14, 21; May 5, 19, 26; June 2, 9.

Councilor District 7 (Marion, Ralls and Shelby counties) on Thursdays, at the High School Auditorium, Shelby, April 8, 15, 22; May 6, 20, 27; June 3, 10.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Abbott Laboratories

Tablets Acetarsone-Abbott, 0.1 Gm.

Tablets Acetarsone-Abbott, 0.05 Gm.

Tablets Calcium Gluconate-Abbott (Flavored), 1 Gm.

Campbell Products, Inc.

Novatropine

Novatropine Tablets $\frac{1}{24}$ grain

Eli Lilly & Co.

Tetanus Toxoid, Alum Precipitated (Lilly)

National Aniline & Chemical Co.

Aminopyrine—"National"

Aminopyrine Tablets, 5 grains

National Drug Co.

Antipneumococcic Serum-Felton-Type II
(Refined and Concentrated)

Sharp & Dohme, Inc.

Diphtheria Toxoid, Alum Precipitated, 1 cc.
vial package

Diphtheria Toxoid, Alum Precipitated, ten 1
cc. vials package

Diphtheria Toxoid, Alum Precipitated, one
10 cc. vial package

Tetanus Toxoid, Alum Precipitated, Refined
Protamine Zinc Insulin

Protamine Zinc Insulin, 10 cc.

Winthrop Chemical Co., Inc.

Salyrgan Suppositories

The following members have accepted invitations of the Postgraduate Committee, the Cancer Committee and the McAlester Foundation of the State Association to deliver addresses at meetings of the component societies and lay meetings:

Drs. Howard A. Rusk and Daniel L. Sexton, St. Louis, were guests of the Marion-Ralls County Medical Society at Hannibal on April 2. Dr. Rusk spoke on "Hypertension" and Dr. Sexton discussed "Endocrine Therapy."

The South Central Counties Medical Society had as its guests on April 2 at Mountain Grove Drs. Hans L. Kleine and W. C. Scrivner, St. Louis. Dr. Kleine discussed "Modern Technic of Contraception" and Dr. Scrivner spoke on "Sterility."

The Buchanan County Medical Society had as guests at St. Joseph on April 6 and 7 Drs. M. Pinson Neal and Dudley A. Robnett, Columbia, and A. J. Kotkis and Samuel B. Grant, St. Louis. Dr. Robnett spoke on "Cancer of the Cervix," Dr. Kotkis on "Diathermy as a Therapeutic Agent," and Dr. Grant on "A Dissertation on Cardiac Arrhythmia."

Drs. C. Malone Stroud and Charles Sherwin, St. Louis, were guests of the Moniteau County Medical Society at California on April 8. Dr. Stroud spoke on "Management of Allergic Diseases," and Dr. Sherwin discussed "Early Diagnosis and Treatment of Cancer of the Rectum."

Drs. A. R. McComas, Sturgeon; E. Lee Miller, Kansas City; M. Pinson Neal, Columbia; Ross A. Woolsey, St. Louis, and W. E. Breuer, St. James, were guests of the 8th Councilor District at Washington on April 1. Lectures on "Appendicitis" were presented to high school students and at a public meeting. A scientific session was held in the evening.

Dr. W. H. Breuer, St. James, was a guest of the Gasconade-Maries-Osage County Medical Society on April 9 and spoke before high school students at Safe on "Appendicitis." On April 12 Dr. Breuer spoke on "Appendicitis" before high school students at Linn.

A meeting was held at Lebanon by the Laclede County Medical Society on April 12. Dr. C. H. Neilson, St. Louis, and Dr. H. A. Lowe, Springfield, spoke before high school students and at a scientific session, their subject being "Appendicitis."

On April 12 Drs. Dudley S. Conley and M. Pinson Neal, Columbia, and Dr. A. R. McComas, Sturgeon, were guests of the Phelps-Crawford County Medical Society at Rolla. Dr. Conley spoke on "Early Acute Suppurative Appendicitis" and Dr. Neal on "The Leukocyte Count."

MISCELLANY

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are here reprinted that the members throughout the state may have the opportunity of reading them.

Late (Tertiary) Syphilis—The Liver and the Spleen

Latent syphilis of the liver and the spleen are without symptoms, and is apt to be either overlooked or considered of slight significance. For this reason it is highly desirable that a serological blood test be made upon all patients with palpable livers or spleens.

Slow chronic inflammatory and degenerative changes and fibrosis or cirrhosis of the liver are to be expected among the clinical manifestations of syphilis. Local-

ized gummata varying in size from multitudes of pin-head sized to large single lesions with extensive necrosis may develop. Both types may develop simultaneously, the clinical picture depending upon the location of cirrhotic and gummata lesions with respect to important structures within and without the hepatic and biliary systems. A large gumma projecting into the portal fissure may produce ascites by pressure on the portal vein. Thousands of miliary gummata, a diffuse interstitial fibrosis, on the contraction of a gummata scar, may be equally effective in blocking the portal circulation within the liver and bringing about ascites. Jaundice may arise from diffuse interstitial hepatitis with blocking of the finer bile ducts, or from the pull of a band of fibrous tissue, the distortion of a scar or the pressure of a fresh gumma which kinks or blocks the hepatic duct.

Extensions of localized inflammatory processes from the parenchyma of the liver to the peritoneum are common in cases of syphilitic gumma. The resulting adhesions may bring about almost complete obliteration of the portal fissure, and secondary inflammatory involvement of the gallbladder, making itself apparent in symptoms of biliary tract obstruction and cholecystitis.

The symptoms of syphilis of the liver bear a striking resemblance to those of infectious and malignant processes. In the differential diagnosis Rolleston enumerates the following sources of diagnostic error: (1) Symptoms of syphilis of the liver suggestive of portal cirrhosis, or simple chronic peritonitis and perihepatitis; (2) amyloid; (3) tumors of the liver including malignant growth, hydatids and enlarged gallbladder; (4) hepatic suppurations and abscesses; (5) symptoms suggesting cholelithiasis; (6) imitations of chronic splenic anemia and, (7) cases suggesting hypertrophic biliary cirrhosis. The greatest cause of diagnostic error lies in the failure to make a serological blood test. When there is doubt as to whether the patient is suffering from liver damage, the presence of large quantities of urobilin in the urine as indicated by the Schlesinger test is often of value in making the diagnosis. The syphilologist and the medical consultant should insist that the protection of the patient and the surgeon from mistakes involving syphilis requires a routine serological blood test and careful attention to a history of syphilis in every patient who is considered for an abdominal operation.

The use of the arsphenamines in late syphilitic hepatitis should be approached with the greatest of caution. For practically every case the only safe procedure in treatment is through mercurial and iodide preparation. The administration of the arsphenamines at the outset is distinctly dangerous, since it is impossible to estimate the exact condition of the liver. Bile-stained urine and the presence of obvious jaundice or even a small amount of abdominal fluid, would indicate that the physician would be taking an entirely unwarranted risk in using arsenicals.

Patients should be impressed with the great importance of being under constant observation in order to protect them from the development of serious relapse or of other manifestations of syphilis. A follow-up system is as necessary in visceral syphilis, as it is in the early stages of the disease.

The Gastro-Intestinal Tract in Syphilis

In early syphilis gastric complaints are a minor element although Wile estimates that in one third of his series of early cases, symptoms from the gastro-intestinal tract were part of the clinical picture.

In latent and tertiary syphilis, according to records of Brown and Stokes, 87 per cent of the patients gave "stomach trouble" as their chief symptom. This is a most important fact to keep in mind. Operations for

gastric crises in functionally disturbed stomachs associated with neurosyphilitic paresthesias simulating chronic conditions of the gallbladder and the appendix, and pancreatitis, etc., would be done less frequently if the diagnosis were not made from the point of view of symptoms only. The spinal fluid examination is a diagnostic procedure of the highest importance, even outranking the serological blood test in the field of internal medicine. It should be used in all suspicious gastric cases.

The late syphilides of the stomach consist of diffuse gummata infiltration, nodulo-ulcerative lesions similar to the nodulo-ulcerative late lesions of the skin and mucous membranes, large solitary gummata, and chronic interstitial fibrosis. The critical issue for the patient is the differentiation between syphilis and cancer of the stomach. Simple peptic ulcer seems to be less confusing.

The Carman-Eusterman criteria present the salient points in the diagnosis of gastric syphilis:

1. Average age, 35 years, in contrast with average ulcer age of 45 and cancer age of 54.
2. Average duration of symptoms, two years.
3. Progressive as distinguished from intermittent course.
4. Preservation of appetite as distinguished from anorexia in cancer.
5. Patient undernourished but not cachectic. Condition better than the duration of the lesion, if cancer, would lead one to suspect.
6. Pain, gnawing in character, relieved by vomiting.
7. Evidence of low capacity, sense of fullness or bursting, ability to eat only small amounts, relief by vomiting.
8. Achylia, achlorhydria, subacidity.
9. Retention infrequent.
10. Hemorrhage unusual.
11. Evidence of syphilis, clinical and serological.
12. Typical X-ray findings.

The therapeutic result in the treatment of gastric syphilis is more satisfactory than in any other domain of syphilis. It is practically never necessary to prepare a patient who has an uncomplicated gastric syphilide with mercury or iodide. The arsphenamines in initial doses of 0.2 and 0.3 gm. often produce an immediate cessation of pain. The usual arsphenamine course of six to eight injections, with mercury by inunction, is well tolerated by most patients, and the case should from this point on, be managed as late benign syphilis, giving a minimum of three courses of arsphenamine with interim and coincident mercurialization. Mercury by mouth is undesirable and there is no reason to use iodides, especially at the beginning of treatment. Gains in weight and well-being are phenomenal; X-ray changes, however, are not necessarily parallel to clinical improvement, and the most striking clinical gains may be secured with little or no apparent change in the fluoroscopic picture.

When achlorhydria and achylia are present an anemia in the Addisonian pernicious type not infrequently develops. This requires treatment by the use of liver or liver extract as in similar ideopathic cases.

Late (Tertiary) Syphilis of the Nervous System—Clinical Syndromes (After Nonne)

Out of the many signs and symptoms already discussed, the more common syndromes emerge which make it possible, to some extent, to classify types of neurosyphilis. The most typical and frequent are:

1. Vascular syphilis of the brain. The onset is early, usually within the first three to five years of the infection. Prodromal symptoms are not distinctive although headache, dizziness, insomnia and various psychic disturbances are highly suggestive. The onset of paralysis may be sudden but is often gradual with

gradual recovery. Bulbar symptoms including ocular paralysis, disturbances of speech and swallowing reflexes, due to involvement of the basilar artery, may develop. In most cases there are no sensory disturbances and pupillary changes are absent.

2. Cerebral meningeal neurosyphilis: The symptomatology is essentially nonspecific unless there is enough basilar involvement to supply the more distinctive signs of cranial nerve palsies. In general, lesions of the base of the brain, particularly of the optic and the seventh and eighth nerves appear more conspicuous early in the disease, while the nuclear lesions become prominent later. Persistent and severe headache, alterations of personality and neurasthenic symptoms should lead to a serological blood test and a searching neurological examination. The slightest suggestion of suspicion from such an examination should call for an immediate spinal fluid test.

3. General paralysis of the insane (paresis). In many instances the separation of paretic neurosyphilis from other forms of syphilis of the brain is accomplished with the greatest of difficulty. There is the constant possibility of confusion with the meningeal, vascular and parenchymatous forms of neurosyphilis. The course of the disease varies widely in different patients. There is the excited type with delusions, extreme irritability and outbursts of maniacal violence. There is the silent, depressed and suicidally inclined patient, and there is the slow, deteriorative type which gradually declines into silliness, dementia, and amenia.

4. Syphilitic spinal cord syndromes. Sensory rather than motor disturbances characterize a large part of the symptomatology of spinal syphilis. The early symptoms are pain and paresthesias in the upper and lower extremities and in the buttocks; hyperaesthesia in spots where pain is felt; tenderness on pressure in the hyperaesthetic areas; muscular tension; increased tendon reflexes; stiffening of the back; early bladder disturbances; motor weakness often interpreted as fatigue; spinal fluid strongly positive and serological blood test usually positive. Various forms of syphilis which simulate other cord lesions present great difficulties in differential diagnosis.

5. Tabes dorsalis. The important symptoms and signs of tabes dorsalis are lightning pains, visual symptoms, bladder symptoms, paresthesias, ataxia, visceral crises, impotence, ptosis, girdle sensation, Argyll Robertson pupils, reduced or absent lower cord reflexes; Romberg sign and sensory disturbances and dissociation.

On account of the abundant visceral symptomatology of tabes dorsalis, a background is provided for a great deal of diagnostic error. A systematic study of surgical error based upon the records of 1000 cases of tabes dorsalis in Cook County Hospital showed that 9.7 per cent had been subjected to useless operation. Emphasis upon the signs of tabes in the history and examination of a patient before operation is imperative.

OBITUARY

EDWIN ELGIN EVANS, M.D.

Dr. Edwin Elgin Evans, Columbia, was born in Linn County, Missouri, April 23, 1869, and died in St. Louis, February 8, 1937, of coronary thrombosis. Dr. Evans was graduated from the Missouri University Medical School in 1898. He began practice at Hallsville.

Since 1905 his practice had been exclusively in nervous and mental diseases with the exception of four years spent in general practice in Columbia. He was assist-

ant physician at the State Hospital, Fulton, for twelve years; was superintendent of the East Louisiana State Hospital, Jackson, Louisiana; assistant physician at the State Hospital, St. Joseph, and assistant superintendent and managing officer of the Huntington State Hospital, Huntington, West Virginia. Because of ill health he retired from active practice in 1933. He had made his home in Columbia for the last several years.

He was a member of the Boone County Medical Society. He was a member and president of the East and West Feliciana Parish Medical Society and had been a member of the Louisiana and West Virginia state medical associations.

He is survived by his widow, Mrs. Rella Bright Evans, Columbia.

CHARLES FILLMORE GREENE, M.D.

Dr. Charles Fillmore Greene, Mountain Grove, a graduate of the University of Tennessee College of Medicine, Memphis, 1878, died of the infirmities of age at Mountain Grove, March 5, aged 86 years.

Dr. Greene was born at Guntersville, Alabama. He received his preliminary education at Nashville, Tompkinsville, Kentucky, and in the University of Louisville. He practiced medicine in several towns in Southern Missouri, the last of which was Bakersfield. He retired in 1932 and moved to Mountain Grove, having practiced medicine for a little over half a century.

He was elected an honor member of the South Central Counties Medical Society in 1927.

Surviving are his widow, four sons, three daughters and one stepdaughter.

GEORGE W. WHITELEY, M.D.

Dr. G. W. Whiteley, Albany, a graduate of the University of Louisville School of Medicine, 1885, died at his home March 10, of a cerebral hemorrhage, aged 76 years.

Dr. Whiteley was born at Matkins, Missouri. He received his early education under a tutor in his home. He preached for four years before beginning the study of medicine.

He began practicing in Albany where he remained in active practice until a short time before his death.

Dr. Whiteley was active in organized medicine. He had served as Councilor of his district and as president, secretary and treasurer of the Gentry County Medical Society. He served as county coroner for two terms, county physician for two terms, was on the pension board from 1909 to 1931 and was a member of the Reserve Corps of Surgeons during the World War. He always maintained his loyalty to his church and was active in the Albany Methodist Church.

He is survived by one daughter and two sons.

ROBERT WILSON BERREY, M.D.

Dr. Robert W. Berrey, Mexico, a graduate of the Missouri Medical College, 1883, died March 15 at the Audrain County Hospital after a two years' illness, aged 75 years.

Dr. Berrey was born on a farm near Mexico. After completing his medical education he began his practice in Mexico and was in practice there more than fifty years.

He had served the Audrain County Medical Society as president for several terms and had been delegate and alternate to the Annual Sessions several times. He was elected an honor member of the Society in 1936.

Dr. Berrey served as mayor of Mexico from 1932 to 1934. He was active as a city councilman and was

a member of the Democratic Committee for twenty-five years. He was county health physician at the time of his death.

He is survived by his widow, Mrs. Mary McAuliffe Berrey, a daughter, three sons and eight grandchildren.

HENRY HANSON, M.D.

Dr. Henry Hanson, Kirkwood, a graduate of the Missouri Medical College, 1889, died at Barnes Hospital, St. Louis, of a kidney condition, March 7, aged 79 years.

Dr. Hanson was born at Yorkshire, England, and came to this country when he was 22.

He began his practice in East St. Louis and remained there for nine years. After practicing in Jefferson County, Missouri, and Hot Springs, Arkansas, he went to Kirkwood in 1911 where he remained in active practice until his final illness. During his medical career he made frequent trips to England and Scotland, doing postgraduate work in those countries.

He is survived by his widow, Mrs. Lutie Hanson, and two sisters.

W. O. RESER, M.D.

Dr. W. O. Reser, Weaubleau, a graduate of Barnes Medical College, 1909, died August 31, 1936, following a gallbladder operation, aged 51 years.

Dr. Reser was born February 14, 1885, at Preston, Missouri, and received his early education there. He was graduated from Barnes Medical College in 1909 and began the practice of medicine at Quincy, Missouri. Later he practiced in Wyoming and Kansas and had been practicing in Missouri for over twelve years at the time of his death.

Dr. Reser was a member of the Masonic Order. He was president of the Dallas-Hickory-Polk County Medical Society at the time of his death.

He is survived by his widow, Mrs. May Reser, and four children.

ALBERT H. CORDIER, M.D.

Albert H. Cordier, Kansas City, 78 years old, widely known retired surgeon, died at his home, January 23, 1937. He was born December 17, 1859, in Kentucky, son of Joseph C. Cordier, a French born merchant. He received his medical education at the University of Louisville, where he was graduated in 1881. The next three years were spent in Bellevue Hospital Medical College, New York, as an intern and assistant. He went to Kansas City in 1891 from Malden, Massachusetts, with his wife who died in 1935.

Dr. Cordier was for many years professor of surgery in the University Medical College, Kansas City, but retired from active practice a number of years ago due to declining health. In 1896 he was president of the Tri-State Medical Society and was a member of the Jackson County Medical Society, the State Association and the American Medical Association.

His chief hobby was collecting trophies of big game and birds and his travels annually took him to remote corners of North America. In 1916 he put aside the rifle and turned to photography, later becoming famous for his ability to obtain perfect reproductions of bird life in their natural haunts. He was recognized, too, as a most interesting author on game hunting and bird life and was truly one of America's best known hunter naturalists. His book, "Birds, Their Photography and Home Life," includes some two thousand rare pictures taken by Dr. Cordier in their natural surroundings.

He leaves a son, A. Price Cordier, of the home; a daughter, Mrs. J. I. Batchler, and two sisters, Mrs.

Lillie Beal, Cedar Rapids, and Mrs. Emma Beal, Portland, Oregon—From the Jackson County Medical Journal.

ALVIN LORIE, M.D.

The sudden death on March 8 of Dr. Alvin Lorie, Kansas City, marked the passing of a great physician, a loyal friend to many, a courageous leader and a valuable citizen. Dr. Lorie's death at the comparatively early age of 50 years was a costly loss to Kansas City for which reparation can never be made.

Since he went back to his native Kansas City in 1915 to begin the practice of medicine he had grown to be a more and more potent factor in the community, not only as a doctor but as a man of unusual character and vitality. After he graduated from Westport High School in Kansas City in 1904, he went to the University of Michigan where he was trained in his specialty of ear, nose and throat diseases by Professor Canfield. That he left the imprint of his skill and personality on Dr. Canfield during the days at Ann Arbor is evidenced by the fact that that fine teacher told many persons of Dr. Lorie's ability as well as of the devoted personal friendship of the two men.

After teaching four years in the medical school at Michigan, Dr. Lorie took his fine training to Kansas City where he immediately established himself as a man who had attained the highest standards of medical efficiency. It did not take long for many persons there to recognize his skill and ability with the result that his reputation grew quickly and steadily. Material success of course followed, a success which never stopped increasing. But even more important, his medical reputation spread to all parts of the country so that the outstanding men in his field recognized him as their peer, granted him honor and position and sought his advice as well as his unfailingly charming company.

Dr. Lorie's medical success, like that of any truly outstanding physician, was based on his complete knowledge and extreme technical skill. To these two essentials was added one of his outstanding characteristics, a supreme self confidence which was entirely justified and never abused or rashly used. His maxim in operating was never to cut beyond the point that he could see clearly but his amazing skill permitted no lost motion or time in getting to that point and then beyond it. His skillful nose work, his masterly mastoid, sinus and associated brain work technic will be remembered by all who were privileged to be familiar with them. His cases of successful resection of congenital cystic tumor of the larynx in the newborn, perhaps more than anything else, gave one an understanding of Dr. Lorie's uncanny operating skill. His associates will never forget the feeling of complete ease and confidence which they felt while he was working on their patients.

It is perhaps difficult to dissociate Lorie as a doctor from Lorie as a man and a friend. But no matter what career he might have followed, his vital personal qualities would have found full expression. Those to whom he was a loyal and understanding friend are uncounted. People instinctively sought his friendship and came to him with their troubles, leaning on him and depending upon him for guidance in difficulties completely separated from those concerned with his profession. They knew he was honest, direct and that his advice would always be for their best interests even though adherence to it might result in someone's toes getting stepped on.

Dr. Lorie's aggressive personality, sense of fair play and clear thinking were native qualities which made it inevitable that he should be a leader. Thus it was entirely logical that he gained a dominant position at

St. Joseph Hospital, at the same time establishing a lasting friendship with the sisters and members of the staff such as few men have done. Likewise at the General Hospital it was natural that he should head his department for many years and bear an active part in the direction of the policies of that institution as a whole. And to Dr. Lorie must go a major share of the credit for the establishment of the Alfred Benjamin dispensary on the directing board of which he served until the moment of his death.

The writer cherishes particularly his relations with Dr. Lorie in the building of Menorah Hospital. For many years we dreamed of the project and then when it loomed up as a reality we slaved for it. There were times, perhaps, when Dr. Lorie thought that neither were his efforts appreciated nor his motives understood. But that did not matter. There was never any variation in his mind from the plan of a fine hospital for the best interests of all, one that would be open to all ethical physicians regardless of creed or other affiliations. His activities on behalf of the creation of such a hospital are illustrative of his complete unselfishness. In that, as in everything else which he undertook, he was concerned primarily with the good of the greatest number, not for the benefit of a limited few.

Everyone who knew Dr. Lorie knew that he was a man of courage, equally frank with friend or foe. Many readers of these words will remember a meeting of the Jackson County Medical Society about two years ago when Dr. Lorie sat through a hectic meeting, listening to criticism, some frank, some veiled, of the institution which he loved and in the building of which he had been so important a factor. The resulting unpleasantness to him was unnecessary because it sprang from an obvious misunderstanding of motives. Just before that meeting ended Dr. Lorie arose and made a frank, manly and courageous address to a hostile and antagonistic gathering. Somehow his clear, fearless words dispelled the hostility that was in the air. In its place came a feeling of respect for Dr. Lorie and an inclination to give him the credit that was his due. His conduct on that occasion was no more than typical. He had a capacity to criticize actions of which he did not approve in such a manner that only rarely did he lose the friendship of those involved.

To attempt to record in words the vitality of Dr. Lorie, the true essence of the man, is to set one's self a futile and impossible task. It must suffice to say that he lived a full and happy life, that he took from his years on this earth the very utmost. He loved sports and the companionship of his many friends. He loved all those things which the truly masculine man loves. He knew when to play and when the time was right he played hard. When it was the proper time to drink he enjoyed drinking and the rare companionship that it brought him. He loved racing and its excitement and fascination. He loved everything that was of the out-of-doors. But above all, of course, he loved his family. With its members he spent innumerable happy hours planning and building the mountain home where his friends were always welcome. There were many hours of joy when, with his family, he talked of the things which they would do in the years to come. There were happy days in the out-of-doors with his son Jimmy, whom he proposed to teach how a gentleman should live.

In the last analysis one can only say: a fine gentleman, a true friend and a great physician has left us.—A. S. From the Jackson County Medical Journal.

CHARLES E. KRIMMINGER, M.D.

Dr. Charles E. Krimminger, Independence, died February 4, 1937, at the age of 64. He became ill of

influenza and died of pneumonia at the Independence Sanitarium.

Dr. Krumminger was born in Bollinger County in 1872. He went to Kansas City, Missouri, when about 15 years of age to work for the Kansas City Southern Railroad. He continued working for the railroad during his study of medicine. He began his practice in Independence, in 1904, where he continued until his death. He was a member of the Jackson County Medical Society, the Missouri State Medical Association and the American Medical Association. He was Deputy Coroner of Jackson County for four years, serving in that capacity until four years ago. Dr. Krimminger was also very active in Methodist Episcopal Church circles and was president of the board of trustees of the Watson Memorial Methodist Episcopal Church of Independence.

Dr. Krimminger is survived by his widow, Mrs. Fleta Krimminger, of the home.—From the Jackson County Medical Journal.

JOEL ISHMAN DENMAN, M.D.

Dr. Joel Ishman Denman, Kansas City, 60 years old, died February 2, 1937, at St. Mary's Hospital, as the result of a fall received about a month previously.

Dr. Denman was born in Darlington, Missouri, in 1877. He received his early education in Arkansas and later attended St. Louis University, receiving his Medical Degree in 1900. He then went to Pueblo, Colorado, where he practiced until 1907, going to Kansas City then and practicing there until the time of his death.

During the war Dr. Denman served as a Lieutenant in the Navy. He was a member of the Jackson County Medical Society and the Kansas City Angler's Club.

Dr. Denman is survived by his widow, Mrs. Julia Denman, of the home; a son, Anthony, a student at Rockhurst College; a daughter, Mary Jane, a student at St. Mary's Academy, Leavenworth, Kansas; a brother, William Denman, Denver, Colorado; and three sisters, Mrs. Arch McDonald, Siloam Springs, Arkansas, Mrs. Dora Wright and Mrs. Lola Lancaster, Westville, Oklahoma.—From the Jackson County Medical Journal.

The 400 school children whose blood pressures Edgar A. Hines, Jr., Rochester, Minn. (*Journal A. M. A.*, April 10, 1937), studied were between the ages of 6 and 19 years. The reactivity of the blood pressure was measured by a standard test in which local cold was used as the stimulus. In the group with "normal" (minimal) responses the mean increase was 12.6 ± 0.15 mm. of mercury for the systolic and 14.0 ± 0.16 mm. for the diastolic pressure. In the hyperreactive group the mean rise in blood pressure was 33.8 ± 0.37 mm. for the systolic and 33.8 ± 0.51 mm. for the diastolic pressure. Eighteen per cent of the children had hyperreactions in the systolic and diastolic pressures. There was a much greater lability in the diastolic blood pressure in this group of children than was previously noted in adults. In many instances the diastolic "range" was equal to or greater than the systolic. This was especially true through puberty up to the age of 16 years, after which there was a decrease in the mean diastolic range. The mean systolic range increased up to the age of 14 years and was then followed by a slight decrease. It is significant that although there was a definite increase in the mean reaction with age there was no significant change in the incidence of hyperreactors in the different age groups. There was no correlation between the responses to the test and the height and weight.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

Dent County Medical Society, January 8, 1937.

Lincoln County Medical Society, February 16, 1937.

Benton County Medical Society, February 26, 1937.

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society was called to order at the Missouri Methodist Hospital at 8 p. m., March 3, by the president, Dr. Charles Greenberg.

A letter from the St. Louis Medical Society's Medico-Legal Fund Committee asking for a contribution "to eradicate the illegal corporate practice of medicine in the City of St. Louis and the State of Missouri" was read. Dr. W. T. Stacy moved and Dr. J. H. Ryan seconded that the Society donate \$100 to the Medico-Legal Fund of the St. Louis Medical Society. The motion carried.

The announcement of the celebration of the hundredth anniversary of the St. Louis Medical Society was read.

The application for provisional membership of Dr. Ira D. Kime, Cameron, was read and on vote he was elected unanimously.

It was moved by Dr. E. E. Wadlow and seconded by Dr. Albert Muench that the April meeting night be changed from Wednesday to Tuesday because of the combined meeting of the Buchanan County Medical Society and the St. Joseph Clinical Society on that night. The motion carried.

Dr. Charles Greenberg read a paper on "Renal Function." He emphasized the importance of fractional phenolsulphonphthalein tests in judging the surgical risk of a patient. The paper was discussed by Drs. J. H. Ryan and T. L. Howden, Dr. Greenberg closing the discussion.

The meeting adjourned at 9:10 p. m.

O. EARL WHITSELL, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society met on March 8 at 8 p. m. at the Colonial Tavern, Cape Girardeau.

The following members were present: Drs. B. W. Hays, Jackson; J. H. Cochran, W. E. Yount, O. L. Seabaugh, D. H. Hope, H. V. Ashley, H. L. Cunningham, G. J. Tygett, C. A. W. Zimmermann and M. H. Shelby, Cape Girardeau, and Edward Crites, Sedgewickville. Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary of the Association, was present to help make arrangements for the Annual Session of the Association.

A letter from the State Board of Health signed by Dr. C. F. Adams, director of the laboratories, asking the Society to write the senator and representatives advising an increase in appropriation for this department was read. After discussion this was tabled without action.

Dr. H. L. Cunningham, Cape Girardeau, chairman of the committee on hotels, reported that the Marquette Hotel would have seventy-five rooms available for the Annual Session, the Idan-Ha forty rooms and the St. Charles ten rooms.

It was suggested that during the Annual Session speakers appear before the Cape Girardeau, Jackson and St. Mary's high schools, the Rotary and Lions clubs, St. Vincent College and women's clubs of Jackson and Cape Girardeau, the subject of the addresses to be "Appendicitis."

Dr. B. W. Hays, Jackson, president, appointed Dr. G. J. Tygett, Cape Girardeau, to arrange for a luncheon meeting for physicians interested in eye, ear, nose and throat work during the Annual Session.

M. H. SHELBY, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society held its regular quarterly meeting at the office of Dr. J. S. Triplett, Harrisonville, March 11, at 7:30 p. m. Dr. L. V. Murray, Pleasant Hill, vice president, presided.

Officers were elected as follows: President, Dr. B. B. Tout, Archie; vice president, Dr. L. V. Murray, Pleasant Hill; secretary, Dr. J. S. Triplett, Harrisonville. Dr. L. V. Murray, Pleasant Hill, was elected delegate and Dr. F. B. Ellis, Garden City, alternate. Dr. G. W. Griffith, Garden City, was elected to the board of censors for three years. Dr. T. W. Adair, Archie, was elected a member of the Auxiliary Committee on Public Policy.

In appreciation for the long and valuable service which he has rendered the medical profession and the Cass County Medical Society, Dr. T. W. Adair, Archie, moved that the Society present to Dr. M. P. Overholser, Harrisonville, \$25. The motion was seconded and unanimously carried.

It was moved by Dr. T. W. Adair, Archie, and seconded and carried that the Society remit the county dues of Dr. D. S. Long, Harrisonville, who was totally disabled on account of illness from August, 1935, to August, 1936.

Dr. F. B. Ellis, Garden City, presented a splendid paper on "Hyperthyroidism."

Dr. T. W. Adair, Archie, read a paper on "Actinomycosis in Man" and reported a case.

Both papers were freely discussed.

All present were solicitous concerning Dr. M. P. Overholser's health and hoped for his early recovery.

Members present were Drs. T. W. Adair, Archie; F. B. Ellis and G. W. Griffith, Garden City; B. O. Hartwell, Drexel; L. V. Murray, Pleasant Hill, and J. S. Triplett, Harrisonville. Visitors were Drs. Edward Andruss and W. G. Thompson, Holden; O. B. Hall and L. J. Schofield, Warrensburg, and A. H. Baldwin, Pleasant Hill.

J. S. TRIPLETT, M.D., Secretary.

RANDOLPH-MONROE COUNTY MEDICAL SOCIETY

The Randolph-Monroe County Medical Society met March 9 at Moberly.

Dr. Thomas M. Martin, St. Louis, discussed "Carcinoma of the Rectum, Surgical Treatment."

Dr. A. N. Arneson, St. Louis, spoke on "Carcinoma of the Pelvis and Rectum."

Guests and members present were: Drs. Martin and Arneson, St. Louis; M. C. McMurray, Paris; T. S. Fleming, R. D. Streeter, C. C. Smith, M. P. Hunter, C. K. Dutton, F. L. McCormick, O. K. Megee, L. E. Huber and M. E. Kaiser, Moberly.

M. E. KAISER, M.D., Secretary.

ST. FRANCOIS-IRON-MADISON-WASHINGTON-REYNOLDS COUNTIES MEDICAL SOCIETY

The St. Francois-Iron-Madison-Washington-Reynolds Counties Medical Society met at the Courthouse, Farmington, on February 26. The meeting was called to order by the president, Dr. J. P. Yeargain, Irondale, at 8 p. m. with seven members and three visitors present.

The scientific part of the program was presented by Dr. Paul F. Fletcher, St. Louis, acting under the auspices of the United States Children's Bureau, the Missouri State Board of Health and the Postgraduate Committee of the Missouri State Medical Association. Dr. Fletcher gave an excellent discussion of the problem of syphilis in women and its significance in pregnancy with diagnosis and treatment. He emphasized the importance of routine blood Wassermann and Kahn tests early in pregnancy and the importance of giving early intensive treatment for syphilis when found in the pregnant woman. He demonstrated some of the early lesions of syphilis with lantern slides. Considerable discussion followed. Dr. S. C. Slaughter, Fredericktown, pointed out the increase in the prevalence of venereal infections since 1926 and suggested the importance of education of the public in regard to these diseases.

The board of censors approved the application of Dr. A. L. Evans, Bonne Terre, and he was voted to membership.

Correspondence from the St. Louis Medical Society in regard to their recent fight against corporate practice was read and referred to Dr. Reuben Appleberry, Farmington, chairman of the committee on medical economics.

Meeting of March 24

The Society met at the Courthouse in Farmington on March 24. The meeting was called to order by the president, Dr. J. P. Yeargain, Irondale, at 8 p. m. with thirteen members and five visitors present.

Dr. E. H. Rohlfing, St. Louis, discussed "The Recognition and Treatment of Congenital Syphilis," and presented lantern slides showing some of the lesions of congenital syphilis.

Dr. Lee D. Cady, St. Louis, discussed "Recent Advances in the Chemotherapy of Syphilis."

There was considerable discussion of these excellent presentations.

Dr. J. P. Yeargain, Irondale, president, appointed Dr. W. Harry Barron, Fredericktown, as delegate to the Missouri State Medical Association meeting and Dr. N. W. Hawkins, Bonne Terre, alternate.

The secretary read correspondence from Dr. C. H. Neilson, St. Louis, Chairman of the Postgraduate Com-

mittee, in regard to holding a meeting at Farmington on April 23. It was decided if arrangements could be made to have the meeting in the high school auditorium in the afternoon and the regular meeting of the Society in the evening the speakers to discuss "Appendicitis."

N. W. HAWKINS, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society was called to order March 10 at 2:50 p. m. with ten members present.

Dr. Downey Harris, St. Louis, conducted a round table discussion on "Rabies." Drs. J. D. Hayward and J. D. Thurman, St. Louis, and T. R. Meyer, Clayton, participated in the discussion.

The by-laws were amended as follows: Chapter 2, Section 1, paragraph 4 is to read "The names of all applicants together with the names of their sponsors will be published two times in the *Bulletin* before being voted by the Council."

Dr. T. R. Meyer, Clayton, spoke about the present smallpox epidemic. He is following the policy of encouraging pupils in schools to go to their private physicians for vaccination and only occasionally has he found it necessary to deviate from this policy. Dr. E. O. Breckenridge spoke on behalf of himself and several other doctors and expressed approval of Dr. Meyer's action.

Dr. Curtis H. Lohr, St. Louis, who has applied for corresponding membership, made a short talk. He pointed out that at present there is no adequate protection against patients who really can pay entering the County Hospital. The affidavit has been grossly disregarded he stated.

Drs. C. P. Dyer, Webster Groves, said that Hoffman-LaRoche had asked for thirty copies of the *Bulletin* of the Society containing the articles regarding radio programs. Dr. Dyer also read a motion that had come before the Chicago Medical Society endorsing the action of the Westchester (New York) Medical Society recommendation that the American Medical Association establish a department of public relations to carry on adequate propaganda against compulsory health insurance among the public as such a scheme would involve increased cost, technical difficulties and impair the quality of medical service. He moved that the Chicago resolution be referred to the committee on medical economics together with the Bopst plan which was outlined in the *Bulletin* of February 19 and that committee report as soon as possible to the Society for action.

Dr. J. D. Hayward moved the meeting for May 12 be abandoned because of the meeting of the State Association at Cape Girardeau, May 10 to 12.

Meeting of March 24

The Society met at 8:25 p. m. on March 24 with twenty-two members present.

Dr. Franz Arzt, St. Louis, spoke on "Indications for Cesarean Section." The paper was discussed by Drs. J. D. Hayward, F. L. Findley, R. B. Denny, Franz Stern and Julius Jensen.

Dr. Charles O'Keefe, St. Louis, spoke on "Changes in Menstruation at the Time of the Menopause." Discussion was by Drs. J. R. Compton, J. D. Hayward, H. G. Stein, Franz Stern and Julius Jensen.

The Society received an invitation from the St. Louis Medical Society Section on Medical Economics to attend their meeting on March 30.

JULIUS JENSEN, M.D., Secretary.

MISSOURI STATE MEDICAL ASSOCIATION

80th Annual Meeting, Southeast Missouri State Teachers College,
Cape Girardeau

The 80th Annual Meeting of the Association convenes at Southeast Missouri State Teachers College, Cape Girardeau, Monday, Tuesday and Wednesday, May 10, 11 and 12.

HOUSE OF DELEGATES

Auditorium, Southeast Missouri State Teachers College

First Meeting—Monday, May 10, 1937—9:30 a. m.

Order of Business

Roll Call.

Reading of Minutes of Previous Meeting.

Reading of President's Message and Recommendations.

Appointment of Reference Committees:

Committee on Amendments to the Constitution and By-Laws.

Committee on Resolutions.

Committee on Medical Education and Public Welfare.

Committee on Miscellaneous Affairs.

Report of the General Committee on Arrangements: B. W. Hays, Jackson, Chairman.

Report of the Local Committee on Arrangements: M. H. Shelby, Cape Girardeau, Chairman.

Report of the Secretary.

Report of the Treasurer.

Report of the Committee on Scientific Work: E. J. Goodwin, St. Louis, Chairman.

Report of the Committee on Postgraduate Work: C. H. Neilson, St. Louis, Chairman.

Report of the Committee on Publication: Walter Baumgarten, St. Louis, Chairman.

Report of the Committee on Public Policy: W. L. Allee, Eldon, Chairman.

Report of the Committee on Defense: C. E. Hyndman, St. Louis, Chairman.

Report of the Committee on Medical Education and Hospitals: L. W. Dean, St. Louis, Chairman.

Report of the Committee on Cancer: Ellis Fischel, St. Louis, Chairman.

Report of the Committee on Medical Economics: Carl F. Vohs, St. Louis, Chairman.

Report of the Committee on Health and Public Instruction (McAlester Foundation): A. R. McComas, Sturgeon, Chairman.

Report of the Committee on Maternal Welfare: Ralph R. Wilson, Kansas City, Chairman.

Report of the Committee on Mental Health: G. Wilse Robinson, Sr., Kansas City, Chairman.

Report of Special Committees:

Committee on Fractures: M. L. Klinefelter, St. Louis, Chairman.

Committee on Physical Therapy: A. J. Kotkis, St. Louis, Chairman.

Committee on Study of Medical Practice Act: W. H. Breuer, St. James, Chairman.

Committee on Constitution and By-Laws: Floyd H. Spencer, St. Joseph, Chairman.

Appointment of Committee on Nominations.

Unfinished Business.

Recess until 4:00 p. m.

Report of the Council: A. R. McComas, Sturgeon, Chairman.

Report of Reference Committees:

Committee on Amendments to the Constitution and By-Laws.

Committee on Resolutions.

Committee on Medical Education and Public Welfare.

Committee on Miscellaneous Affairs.

New Business (Resolutions, Memorials, etc.).

Selection of Place of Next Session.

Second Meeting—Wednesday, May 12, 1937—2:45 p. m.

Resettlement Administration Program.

Roll Call.

Reading of Minutes.

Election of Officers:

Election of President-Elect.

Report of Committee on Nominations.

Installation of President.

Nominations for Standing Committees by President and Confirmation by House of Delegates.

Unfinished Business.

GENERAL MEETING

Monday, May 10, 1937—1:15 p. m.—Academic Hall,
State Teachers College

- Etiology of Primary Glaucoma and Its Physiologic Treatment.....
.....A. E. Miller, M.D., and T. M. Paul, M.D., St. Joseph
Discussion opened by Dr. A. E. Miller, St. Joseph.
- Treatment of New Growths With Roentgen Ray Therapy Using the Contact
Method: X-Ray Tube Placed in Direct Contact With Skin (Moving
Picture).....L. G. McCutchen, M.D., St. Louis
- Acute Diverticulitis of the Sigmoid.....W. C. G. Kirchner, M.D., St. Louis
- Modern Treatment of Diabetes.....Donald R. Black, M.D., Kansas City
- The Addiction of Patients to Various Barbituric Acid Derivatives.....
.....G. Wilse Robinson, Jr., M.D., Kansas City
- Improving the Care of the Cardiac Patient in the Small and Community
Hospital.....A. Graham Asher, M.D., Kansas City
- Accurate Differential Section for the Treatment of Trigeminal Neuralgia
.....Roland M. Klemme, M.D., St. Louis

At 4 p. m. the General Meeting will adjourn and the House of Delegates
will immediately go into session.

MATERNAL WELFARE COMMITTEE

Monday, May 10, 1937—6:00 p. m. Marquette Hotel
Dinner Meeting

- Presentation of Reports of Maternal Deaths During 1937.....
Members of Committee on Maternal Welfare, Missouri State Medical
Association
- Critique of Submitted Maternal Death Reports.....
Dr. Norman F. Miller, Ann Arbor, Professor of Obstetrics and Gynecology,
University of Michigan Medical School

All members are invited to attend this meeting and participate in the
discussion. Tickets are on sale at the registration desk.

GENERAL MEETING

Tuesday, May 11, 1937—8:30 a. m. Academic Hall,
State Teachers College

- A Pedagogue Looks at the Doctors.....Walter W. Parker, Cape Girardeau,
President, Southeast Missouri State Teachers College
- Address of the President.....Ross A. Woolsey, M.D., St. Louis
- Address of the President-Elect.....Dudley S. Conley, M.D., Columbia
- Conservative Operations on the Uterus.....
.....A. E. Hertzler, M.D., Halstead, Kansas
- Respiratory Allergy: Its Diagnosis and Treatment.....
.....Herbert J. Rinkel, M.D., Kansas City
- Diagnosis and Treatment of Food Allergy.....Lee Pettit Gay, M.D., St. Louis
- The Doctor's Heart.....A. Morris Ginsberg, M.D., Kansas City
- Treatment of Facial Injuries.....Richard L. Bower, M.D., Kansas City

GENERAL MEETING

Tuesday, May 11, 1937—1:15 p. m. Academic Hall,
State Teachers College

- Vaginitis and Cervicitis.....Melvin A. Roblee, M.D., St. Louis
- How Bad Is Obstetric Care?.....Norman F. Miller, M.D., Ann Arbor, Mich.
- Gonorrhea in the Female.....Quitman U. Newell, M.D., St. Louis
- Gonorrhea in the Male.....John R. Caulk, M.D., St. Louis
- Presentation of Complicating Urological Diagnoses.....
.....R. Lee Hoffmann, M.D., Kansas City
- Prolonged Stimulation of Autonomic Nerves: Immediate and Remote Effects
on the Bladder, Rectum and Colon....John M. McCaughan, M.D., St. Louis
- Borderline and Atypical Hyperthyroidism.....
.....Cyril M. MacBryde, M.D., St. Louis
- Toxic Goiter in the Aged.....Duff S. Allen, M.D., St. Louis

PUBLIC MEETING

Tuesday, May 11, 1937—8:00 p. m. Academic Hall,
State Teachers College

Early Recognition and Treatment of Cancer.....Ellis Fischel, M.D., St. Louis
Appendicitis.....E. Lee Miller, M.D., Kansas City

Entertainment

Tuesday, May 11, 1937—9:30 p. m. Cape Girardeau Country Club
Cape Girardeau County Medical Society, Host.

GENERAL MEETING

Wednesday, May 12, 1937—8:30 a. m. Academic Hall,
State Teachers College

Retinal Detachment: Its Recognition and Treatment.....
.....H. Rommel Hildreth, M.D., St. Louis
Care of Infections of the Neck and Their Complication, Mediastinitis.....
.....Herman E. Pearse, Jr., M.D., Rochester, New York
A Revised Conception of Early Prostatic Hypertrophy.....
.....Clinton K. Smith, M.D., Kansas City
Discussion opened by Dr. Otto J. Wilhelmi, St. Louis
Chronic Prostate: What the Average Practitioner Should Know About It
.....Neil S. Moore, M.D., and Stephen M. Tapper, M.D., St. Louis
Importance of the Early Recognition of Neurosurgical Conditions.....
.....Leonard T. Furlow, M.D., St. Louis
Roentgen Kymography: A New Aid in the Diagnosis of Heart Disease
.....Wendell G. Scott, M.D., and Sherwood Moore, M.D., St. Louis
Diagnosis and Treatment of Cholelithiasis and Extraductal Stones.....
.....Paul F. Hunt, M.D., Kansas City
Reduction of Femoral Neck Fractures Using Positive Radiographic Control
.....J. Laurence Jones, M.D., Kansas City

GENERAL MEETING

Wednesday, May 12, 1937—1:15 p. m. Academic Hall,
State Teachers College

The Function of the Maternal Welfare Program in the State.....
.....Paul F. Fletcher, M.D., St. Louis
The Function of the Child Welfare Program in the State.....
.....O. F. Bradford, M.D., Columbia
Diagnosis and Treatment of Diseases of the Esophagus.....
.....John S. Knight, M.D., Kansas City
Errors of Refraction in Children.....Carl C. Beisbarth, M.D., St. Louis

At 2:45 p. m. the General Meeting will adjourn and the House of Delegates will immediately go into session.

Resettlement Administration Program.....Carl F. Vohs, M.D., St. Louis
Chairman, Committee on Medical Economics

All member of the General Assembly are invited to participate in the discussion of the presentation on "Resettlement Administration Program."

COMMERCIAL EXHIBITS

Academic Hall, Southeast Missouri State Teachers College

PEVELY DAIRY COMPANY, 1001 S. GRAND BLVD., ST. LOUIS, BOOTH 1.

The more recent popularity of evaporated milk has extended to the field of pediatrics because of uniformity, ease of preparation and low cost. Pevely Evaporated Dairy Milk is manufactured under strict supervision and laboratory control. While a comparatively new product, it is backed by fifty years of experience in the dairy business. The Pevely booth exhibits a graphic illustration of a typical evaporating plant showing each step in the evaporation process from the raw milk to the finished product.

LEA & FEBIGER, 600 S. WASHINGTON SQUARE, PHILADELPHIA, BOOTH 2.

Lea & Febiger is exhibiting, under the direction of Mr. L. A. Cleary, a number of new works among which are Werner's "Endocrinology," Wesson and Ruggles' "Urological Roentgenology," Mattice's "Chemical Procedures," Davis' "Neurological Surgery," and new editions of such standards works as Bridges' "Dietetics," Cahot's "Urology," Gray's "Anatomy," Holmer and Ruggles' "Roentgen Interpretation," Cushny's "Pharmacology," Kuntz's "Neuro-Anatomy," Kovacs' "Electrotherapy," DuBois' "Basal Metabolism," Stimson's "Contagious Diseases" and Gifford's "Ocular Therapeutics."

MEAD JOHNSON & COMPANY, EVANSVILLE, IND. BOOTH 3.

A feature of the Mead Johnson exhibit is a display of the Percomorph group of products; namely, Mead's Oleum Percomorphum, 50 per cent in liquid and in capsule form, and Mead's Cod Liver Oil fortified with Percomorph Liver Oil.

PHILIP MORRIS & CO., LTD. INC., 119 FIFTH AVE., NEW YORK, BOOTH 4.

Philip Morris & Co. is demonstrating the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than ordinary cigarettes in which glycerine is employed.

A. S. ALOE COMPANY, 1819 OLIVE ST., ST. LOUIS, BOOTH 5.

A. S. Aloe Company is displaying a general line of surgical instruments and equipment for the physician and hospital. The new Aloe Short Wave Diatherm, the Elliott Treatment Regulator, the de Bakey Blood Transfusion Instrument and other specialties are featured. Mr. P. F. Beyreuther, the Aloe Representative in this territory, is in attendance to serve in any way possible.

THE DICK X-RAY COMPANY, 3974 OLIVE ST., ST. LOUIS, BOOTH 6.

The Dick X-Ray Company is showing the latest improvements in Short Wave Diathermy units, the new Morse Wave Generator with its sinusoidal, galvanic and other low voltage currents; also a shockproof combination mobile and portable X-ray unit of an entirely new design.

LEDERLE LABORATORIES, INC., 30 ROCKEFELLER PLAZA, NEW YORK, BOOTH 7.

Lederle Laboratories, Inc., are exhibiting their 1 cc. Concentrated Solution Liver Extract for anemias; their Pollen Antigens for hay fever, including Poison Ivy Extract, and their new Liver and Iron capsules.

THE BORDEN COMPANY, 350 MADISON AVE., NEW YORK, BOOTH 8.



A warm welcome awaits all physicians at the Borden booth. Specially trained representatives will gladly provide information on Borden products, notably Dryco, Special Dryco, KLIM, Beta Lactose, Merrell-Soule Prescription Products and Borden's Irradiated Evaporated Milk.

THE MEDICAL PROTECTIVE COMPANY, WHEATON, ILLINOIS, BOOTH 9.

The Medical Protective Company invites you to call at its booth. Medical Protective Service is an institution of the medical profession upon whose legal liability problems they have concentrated for thirty-eight years. Bring your professional liability questions and problems to their booth. Their representative is at your service to present their protection plan, to explain the peculiar relation of the doctor to the law which governs your practice or to discuss any particular phase of professional liability in which you are especially interested.

HAMILTON-SCHMIDT SURGICAL COMPANY, 215 N. TENTH ST., ST. LOUIS, BOOTH 10.

The Hamilton-Schmidt Surgical Company are displaying an interesting variety of new surgical instruments, also physiotherapy equipment. A new Short-Wave Unit is being demonstrated. Representatives will be glad to meet friends and discuss surgical equipment.

THE C. V. MOSBY COMPANY, 3523 PINE BLVD., ST. LOUIS, BOOTH 11.

The C. V. Mosby Company is exhibiting its complete line of medical publications. Physicians are cordially invited to inspect the following new books: Horsley and Bigger "Operative Surgery," Titus "Management of Obstetric Difficulties," Shand's "Orthopedic Surgery," Hirschman "Synopsis of Ano-Rectal Diseases," Koll "Medical Urology," Mansfield "Materia Medica, Toxicology and Pharmacognosy," Hollender "Physical Therapeutic Methods in Otolaryngology" and Meakin's "Practice of Medicine."

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

15th Annual Meeting, Atlantic City, 1937

President, Mrs. Robert Fitzgerald, Wauwatosa, Wisconsin.

President-Elect, Mrs. Augusta Kech, Altoona, Pennsylvania.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

13th Annual Meeting, Cape Girardeau,
May 11-12, 1937

President, Mrs. Walter Kirchner, St. Louis.

President-Elect, Mrs. Charles Werner, St. Joseph.

Program

Headquarters: Centenary Methodist Church

Tuesday, May 11

9:00 a. m. Registration.

10:00 a. m. Executive Board Meeting.

12:30 p. m. Luncheon at Centenary Church. (50 cents per plate.)

Address, Mrs. David S. Long, Harrisonville, First Vice President, Woman's Auxiliary to the American Medical Association.

Address, Dr. A. E. Hertzler, Halstead, Kansas, "Why Do Women Marry Doctors?"

4:00 p. m. Tea at Oakenwald, home of Dr. and Mrs. C. A. W. Zimmermann. Music by string trio from the State Teachers College. Members of Cape Girardeau, hostesses.

8:00 p. m. Open meeting of Missouri State Medical Association, State Teachers College.

8:00 p. m. Exhibit of Hobbies, Centenary Church. Refreshments, compliments of the Cape Girardeau Auxiliary.

Wednesday, May 12

8:30 a. m. Registration.

9:00 a. m. General Meeting, Mrs. Walter Kirchner, presiding.

Invocation, Rev. R. H. Daugherty, pastor, Centenary Church.

Address of Welcome, Mrs. J. J. Drace, Cape Girardeau.

Response, Mrs. Willard Bartlett, St. Louis. Business session.

Memorial Hour, Mrs. J. W. Lightner, Odessa.

1:00 p. m. Luncheon, Country Club. (75 cents per plate.)

Addresses by officers of the Missouri State Medical Association.

Installation of new officers.

3:00 p. m. Post-Convention Board Meeting, Mrs. Charles Werner, presiding.

Drive about Cape Girardeau.

7:00 p. m. Banquet, Marquette Hotel (\$1.00 per plate.) Music by string trio.

Address, Dr. Val. B. Satterfield, St. Louis, "Why Be Neurotic."

Vocal solo, Mrs. M. E. Leming, Jr., Cape Girardeau.

Violin solos.

Tap dance.

"Auf Wiedersehen," Mrs. Frank L. Davis, St. Louis.

Dear Auxiliary Members:

It is with a great deal of pleasure and enthusiasm that we are looking forward to the State Meeting of the Auxiliary here next May. We are doing everything possible to make your visit here interesting and attractive; however, one of the features we are desirous of having for your entertainment is one which we cannot put on or accomplish by ourselves.

We want to have a Hobby Show. We are, therefore, inviting the members of the Auxiliary of the entire state who are planning to be with us in May, to join and cooperate with us in our efforts to put this over.

By cooperation we mean we want you to bring or send your own hobby. It may be paintings (oil, water colors, sketches), woodcuts, dolls, dogs, vases, quilts, needlepoint, published volumes of prose or poetry, or any number of other things. Whatever yours may be, bring it.

We have secured a suitable room adjoining our headquarters and are planning now to give one entire evening over to the showing of this display. We hope that the delegates and visitors will contribute to this display, for without your contributions we cannot make it as we desire it should be.

If you will send or bring your part of the display on Monday, May 10, by noon if possible, we will have a committee here to take care of the arranging, placing, hanging, or whatever it may take to be properly displayed. We want to urge everyone to feel free in responding. We can assure you, also, that everything will be safe. Please notify me as soon as possible of your intention to participate.

With best wishes to all our Auxiliary members and hoping to see you all here at the convention, I am

Cordially yours,

MRS. J. J. DRACE,

President of the Auxiliary to the Cape Girardeau County Medical Society.

Sixteen of the twenty organized auxiliaries in the state have been active during the year in public relations work. Each of these sixteen auxiliaries has reported to the state chairman of public relations, Mrs. W. C. Cheek, Springfield, either one large meeting, several meetings or the presentation of public relations material at each auxiliary meeting during the year.

BOOK REVIEWS

A MANUAL OF THE COMMON CONTAGIOUS DISEASES. By Philip Moen Stimson, A.B., M.D., Assistant Professor of Clinical Pediatrics, Cornell University Medical College. Second edition, thoroughly revised. Illustrated with 53 engravings and three plates. Philadelphia: Lea & Febiger, 1936. Price \$4.00.

This second edition, neatly bound with a flexible cover, is concise though complete and includes the most recent conceptions of contagious disease therapy. A chapter on smallpox has been added.

The first chapter is given over to the consideration of the principles of contagion, taking up specific immunity, natural and acquired, nonspecific immunity, tissue immunity, contagious diseases in general and the exanthemata as a group. The second chapter deals with serum reactions, discussing etiology, clinical manifestations, and in detail the practical prophylaxis and

treatment of serum reactions. The following chapters consider separately the more common contagious diseases, etiology, immunity, pathology, differential diagnosis, treatment and the public health aspect of each disease receiving full consideration and being under a separate heading. The modern concepts of the value and manner of use of vaccines and sera for the various diseases are discussed. A bibliography is appended to each chapter.

The general management of contagious diseases is the subject of the final chapter. Here the principles, the management in hospitals, in boarding schools, in day schools and in the home are outlined in such a definite and clear manner as to alone warrant the purchase of the book.

The clear presentation, the ease of reference and the full bibliographies make this a valuable book for student and practitioner alike.

J. G., Jr.

A TEXTBOOK OF HISTOLOGY. By Joseph Krafa, Jr., Ph.D., M.D., Professor of Microscopic Anatomy, University of Georgia, School of Medicine, Augusta. Baltimore: The Williams & Wilkins Company. 1936. Price \$2.50.

This small volume of 246 pages, which takes in the entire range of human histology, has been prepared for the use of college students. In its preface the author appeals to biologists for the admittance of histology into the college curriculum on the same basis as comparative anatomy, embryology and genetics.

The standard textbooks of histology, written primarily for the use of medical students, probably are more comprehensive than necessary to meet the needs of college students. The writing of a very brief treatise on histology from which the average student, with limited preliminary biological training, may gain an adequate conception of the microscopic structure of tissues and organs and the relationships of tissue structure to physiological functions, however, is beset with difficulties. The author has been fairly successful in meeting these difficulties but the brevity required has resulted in frequent highly dogmatic statements.

On the whole, the book is well written and contains a vast amount of information, but college students probably will find many of the descriptive statements too brief to convey a clear picture of the structure in question.

All but twelve of the ninety-five illustrations are original free hand or camera lucida drawings. The illustrations are well chosen but many of them are limited in scope and somewhat crudely executed.

A. K.

THE PARATHYROIDS IN HEALTH AND IN DISEASE. By David H. Shelling, B.Sc., M.D., The Johns Hopkins University and Hospital, Baltimore. Illustrated. St. Louis: The C. V. Mosby Company. 1935. Price \$6.00.

In this new text on "The Parathyroids" Dr. Shelling has covered the subject completely although concisely. The splendid chapters on pathology and physiology are considered particularly valuable. The author is to be complimented for the manner in which he has handled the chapter on physiology, for he has avoided dogmatic statements and has in no way conveyed the idea that this chapter is final but rather that it brings up to date the knowledge of this structure. Throughout the chapter he correlates clinical observation with experimental data which makes it all the more interesting.

Without going into too much detail, the chapter on the parathyroid hormone covers the important work

done with this preparation. He states that the effect of this hormone on dogs and humans differs very little. In discussing its effect on the parathyroprivic organism, he relates that therapeutic amounts of the hormone produce, first, a phosphate diuresis with a lowering of the concentrations of the inorganic phosphorus in the serum, and then, a slower increase in the serum calcium levels. Later on in the chapter on tetany he stresses this phosphate diuresis and lowered serum phosphorus as the basis for relief from manifest tetany rather than the elevation of serum calcium from tetanic to nontetanic levels.

The author's thorough knowledge of the clinical problems of parathyroid disease is borne out in the chapters on tetany and hyperparathyroidism. He classifies tetany from the standpoint of pathological physiology patterned after the etiological classification of Frankl-Hochwart. Considerable space is given to the effect of vitamin D on calcium metabolism. He discusses the difficulty of correct diagnosis in the incipient cases of hyperparathyroidism and relates in detail the best methods of arriving at a diagnosis.

Each chapter is followed by an extensive bibliography, providing opportunity for references for those who wish to go more deeply into any of the phases of the subject. At the end is included a series of low calcium and low phosphorous diets.

D. L. S.

DISABILITY EVALUATION. Principles of Treatment of Compensable Injuries. By Earl D. McBride, B.S., M.D., F.A.C.S., Assistant Professor in Orthopedic Surgery, University of Oklahoma School of Medicine, etc. Three hundred and seventy-four illustrations. Art Work by Herbert Chezam. Philadelphia: J. B. Lippincott Company. 1936. Price \$8.00.

In the preface the author states that "the purpose of this volume is to interpret the physiological and mechanical alterations arising out of injury to the motor structures of the human body, and to reasonably appraise and evaluate the extent of functional loss as it relates to the economic incapacity of the injured." The book meets this main purpose in an excellent manner and should form a part of the ready reference library of every physician engaged in accident and medico-legal work.

By following the methods of evaluating disability, as described by the author, there should not exist the great discrepancies in the testimony of expert witnesses in courts and before the workmen's compensation commissions.

The book is complete in that most all injuries that one encounters are very briefly, but comprehensively, discussed. Greater detail is devoted to the late results of these injuries and their resulting disabilities. An exact method of measuring the extent of disability following single or multiple injuries is very lucidly described in one chapter. This procedure is employed routinely throughout the text in arriving at a percentage disability resulting from all injuries. Very valuable reference tables of permanent disability accompany each group of injuries. The illustrations are excellent.

J. E. S.

ONE HUNDRED AND FIFTY YEARS OF PUBLISHING. 1785-1935. Philadelphia: Lea & Febiger. 1935.

The straightforward account of a familiar publishing firm which has persisted for 150 years despite depressions, inflations and wild speculative eras, now recognized as one of the leading medical publishers of the world. A magnificent tribute to individual initiative, courage and enterprise.

B. Y. G.

THE JOURNAL

OF THE

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Issued Monthly under direction of the Publication Committee

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E. H. BARTELSMEYER, LL.B., Business Manager
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WILLIAM A. BLOOM, M.D.
BUFORD G. HAMILTON, M.D.

THE COUNTRY DOCTOR

PRESIDENT'S ADDRESS

ROSS A. WOOLSEY, M.D.

ST. LOUIS

In making a plea for the country doctor who is rapidly becoming extinct, I would like to call your attention to our obligations to the rural communities whose problems are the same as they were fifty years ago except for the economic conditions incident to the changes in rural life, brought about by the telephone, automobile and good roads. Present day transportation makes the city with its array of talent and hospitals more accessible; yet the expense and inconvenience of this service is prohibitive to a large majority of these people who consequently drift into the hands of quacks and cults who are rapidly supplanting the country doctor. If one will stand in the offing where he may have a fair perspective of medical practice for the last thirty years he will see the general practitioner in the forefront in the early years, and will notice his inconspicuous place in the background in the later years.

In 1906 the American Medical Association was so disturbed by the condition of many of the medical schools in the United States, and by the laxity of state licensing requirements, that it founded a Council on Medical Education and Hospitals with the late Dr. Nathan C. Caldwell as Secretary. That year Dr. Caldwell went to the Carnegie Foundation and asked that a lay survey of the medical schools be made and that the findings be published. The Carnegie Foundation chose for the job a young educator, Abraham Flechner, who with Dr. Caldwell made an extensive survey in the United States, and their findings were published. This report shocked the public into the realization that the education of medical students was a matter of public concern.

Under the influence of pedagogue Flechner, the Carnegie Foundation and the Rockefeller

General Educational Board, since 1906 medical schools in the United States have striven to be scientific. The disease became more important than the patient. Schools were convinced that no medical school was worthy of its name without sufficient endowment to make its faculty entirely independent from other sources. Such a faculty would not have proper method of contact with its patients and would not be able to teach the student the all important art of the practice of medicine. The developments in the science of medicine are overshadowing the art of applying the information gained which, unless it can be carried to the patient, is valueless. Not all physicians are scientists and few real scientists are good practitioners in medicine. Science gives us knowledge, but only philosophy can give us wisdom. The essence of knowledge is being able to apply it.

The United States has fewer patients per physician than any other country in the world. Twenty-five hundred physicians are removed from practice each year by death or retirement while more than twice this number are being graduated each year. In 1906 we had 167 medical schools in the United States and graduated 5600 students. By 1922, through the splendid efforts of the Council on Medical Education and Hospitals, the medical schools were reduced to eighty-one graduating 2500 students. Today there are only seventy-seven standardized schools in the United States, graduating 5200 students. One school graduated 160 students in 1936. Nine schools graduated more than 125 students in 1936. While the medical schools have been cut to less than half in the last thirty years, they have increased the number of students in the last fifteen years to approximately that of 1906. The student fees have increased proportionately, the top as high as \$620 per year, and a four year college course with a degree is required before matriculation. The medical departments of state universities have fees as low as \$100 per student year and the majority of them require only two years pre-medic work and are the only ones accessible to the country boy.

Read at the 80th Annual Meeting of the Missouri State Medical Association, Cape Girardeau, May 10-12, 1937.

At the present time St. Louis has 392 possible patients for each doctor, yet there are only three doctors in Ripley County with a population of nearly 12,000, making about 4000 patients per doctor or ten times as many patients per doctor as St. Louis shows. Ozark County has four doctors, Bollinger County five doctors, Worth County five doctors, Ste. Genevieve County seven doctors, Taney County seven doctors, Wayne County eight doctors, Clark County eight doctors and Morgan County eight doctors. This gives us an average of nearly 1700 patients per doctor in the last ten counties mentioned. For your information there is not a licensed practicing physician on the Frisco Railroad between Cape Girardeau and St. Mary's, which is a distance of 57 miles. I might go farther and say that there are no licensed practicing physicians between Puxico and Van Buren, which is a distance of 74 miles. I have in mind a city in Oklahoma with 12,000 inhabitants who have been without a licensed physician for practically two years. If some of the doctors in the cities were properly equipped and properly minded to establish a practice in rural communities, both the profession and the public would be benefited by such a distribution.

Today the demand by patients that they be cured as well as diagnosed is shifting attention to the teaching of clinical medicine, and the wise premedical students are shopping around for medical schools that have the best course in clinical medicine. Sixteen medical schools in this category have been listed, and nine of these schools are departments of state universities. The cost of a medical education and the number of years before a man can become self supporting is driving many a bright young man who would choose medicine as a profession to other walks of life, with the danger that the profession might become limited to the sons of the well-to-do and make the profession an aristocracy. Not all of this group of affluence make the best students or the best doctors, and few of them would think of practicing medicine in the country.

Thirty years ago many a country boy put himself through medical school by his own efforts, which is almost impossible today because of the enormous cost. I have in mind an exception, a country lad who has put himself through the University of Illinois by his own efforts, has put himself through the Harvard Medical School, will graduate in June and has an internship in one of the best hospitals in our state beginning July 1. I predict for him a most useful life in the profession, and I will be much disappointed if twenty years hence he is not rated as tops in Harvard's 1936 graduating class.

The objective of modern clinical instruction should be to graduate a doctor who can diagnose a diseased condition, knows how to observe the course of the disease and determine the therapeutic procedure. All the opportunities for study may be offered, but the student must have talent, industry and a liking for medicine. The power of observation and the intense interest in human beings are much better indications that a boy will make a good doctor than finding him dissecting a fly or illtreating a frog, which were the traditional signs that he was destined for a career in medicine. From the day the student enters the portals of a medical school he should be made to realize the correlation of different subjects and that the pursuit of knowledge must continue until the end of his professional career.

The old saying that you can take the boy out of the country but you cannot take the country out of the boy more than holds good with the city boy who is removed to the country. It is much easier for the country boy through higher education to equip himself for a successful, competitive practice in the city than it is for the city boy to adapt himself to the inconveniences of the rural communities and properly contact these families.

One of the reasons why the present day graduate does not practice in the country is because of his dependence on the roentgen ray and clinical laboratories which are inaccessible in the country. The great problem before the medical profession today is the adequate distribution of modern medical service to the entire public at a reasonable cost. Some plan must be devised whereby the family physician will remain the foundation of medical service because his knowledge and experience in such intimate personal contact with the patient makes him better qualified to diagnose and direct the management of the case. Chief concern among the medical educators of today is the rapid growth of specialization, which has led to the establishment of boards representing each particular branch of medicine and surgery to pass on the capability of the individual who will not be listed or rated as a specialist unless he possesses a certificate from the board in his particular branch of practice. This growth of apparent super-knowledge which has led to early specialization has been brought about by the exclusive teaching of the science of medicine; and it is responsible for the rapid drop in the number of general practitioners who are the only ones that may qualify as the country doctor.

The early day Dr. John Sappington of Arrow Rock, Missouri, who introduced quinine as a treatment for malaria to the Mississippi Valley, published a book entitled, "The Theory and Treatment of Fevers," and dedicated it to that

portion of the medical profession who could so far divest themselves of the prejudice of education as to give his pages unbiased and impartial perusal.

Frisco Hospital.

THE INDIVIDUALISM OF MEDICAL PRACTICE

ADDRESS OF PRESIDENT-ELECT

DUDLEY S. CONLEY, M.D.

COLUMBIA, MO.

From earliest medical history, the practice of medicine has been individualistic. The doctor has been allowed to run his own affairs and to shape the course of his own life and profession. In no other line of endeavor has one been so dependent on his own endeavor, his own personality and his own ability. The medical man has gladly accepted this responsibility and has well carried it out.

This individualism, with its freedom of thought and action, has well repaid us for the financial rewards which we might have had in some other line of business.

Our recompense has been that we have been looked up to and respected as leaders in our own communities. No outsiders nor local lay organizations have attempted to dictate nor to advise. In fact, I am sure that the experience which each of you has had shows exactly the opposite attitude among those of your lay community, for they have sought you out for direction as to their own private affairs such as school matters, politics, finances, etc., because of the confidence you have instilled, first, as physicians and, second, as being honest, clear thinking, good citizens. This individualism has been to you, as it has to me, the charm of medicine.

During the last thirty years we have had little interference from governmental agencies, and up to the present time none of serious import. Such changes in the conduct of medical affairs as we have had have been initiated and carried out by ourselves through our county and state associations working in conjunction with the American Medical Association. Through these agencies medical schools have been decreased surprisingly in number but raised in efficiency. Admissions to schools are controlled by raising requirements of premedical training and by confining the admissions of students entering classes to the laboratory and teaching facilities which the individual school possesses. Some attempts have been and are being made to control the number of graduates so that the number may not be in excess of the needs. The dis-

tribution of these graduates cannot be controlled nor should it be, for neither we, the government nor any other agency has the right nor the power to tell a citizen where he shall live and practice. As a consequence, the cities are overcrowded and the rural communities are not well provided for. Perhaps we may also take care of this problem in a proper manner. Hospitals have been inspected and standardized; state board requirements for license to practice have been raised.

These changes have been brought about by our own organizations and are beneficial. We may well be left alone. We will make such changes in the future as seem best for the improvement of medical care for all classes.

The last few years, however, have caused me no little concern. With the changes which are taking place in the fundamentals of our government and of national thought, our privileges and independence are going to be challenged just as has been done in the case of other businesses and enterprises.

Paternalism, once started, will grow rapidly and be destructive to initiative. All of the suggestions which have been brought forward by one or another agency, whether we call such suggestions state medicine, medical insurance, panel system, socialism or what not, may all be grouped under the heading "regimentation." All mean the same thing, i. e., the physicians will be grouped under governmental and lay control and told what to do, whom to treat and how much to charge. This has been done to other lines of business and will happen to us unless we fight to the last to preserve our rights as physicians and to control our own profession. We must present a united and harmonious front. Such a fight will result in success. A divided medical profession can only bring disaster. We must do this as individuals, as county societies, as members of special societies, as a State Association, all working with and through the American Medical Association.

The Federal Government is not justified in interfering with the internal affairs of the state, if the state is recognizing and meeting its responsibilities. The state is not justified in interfering with internal affairs of the county provided the county is recognizing and meeting its responsibilities. The county is not justified in interfering with the affairs of its cities and towns when such cities and towns are recognizing and meeting their responsibilities.

Above all, no one is justified in interfering with the individual, be he physician or one in any other profession or business, providing the individual is recognizing and meeting his responsibilities. The individual physician always has and always will perform his duty to the pauper, the low income group and to any other

provided the physician is left alone without governmental interference and outside meddling.

We should be extremely careful as individuals and as societies in approving and adopting plans which are presented to us. I believe all such, before acceptance, should be indorsed by the properly constituted bodies of the State Association before being accepted and put into action. I am sure you can count on all the resources of the State Association for investigation of new schemes and proposals. After such investigation, I know that you may depend on its advice, consultation and cooperation.

You have honored me far beyond what I deserve when you selected me for your President this coming year. My feelings of appreciation cannot be expressed in words. I also feel a deep sense of responsibility. I realize that during this year many decisions must be made and made right. In my task I shall need and know I shall have the help of each one of you. I shall ask your advice frequently but I know that the final decision must be mine.

Whatever success I may have will be due to you, your advice and cooperation. Such mistakes as are made will be due to me alone.

Guitar Building.

TREATMENT OF DIABETES MELLITUS WITH SPECIAL REFERENCE TO DIET AND THE USE OF PROTAMINE INSULIN

W. H. OLMSTED, M.D.

ST. LOUIS

The present status of the dietetic treatment of diabetes in this country is of singular interest. Because of the wide variation in the use of carbohydrate and fat, let us glance over the country and see how diets for diabetes are arranged in the various clinics.

First, there is the Michigan group headed by Newberg. Here the diets are constructed on the following plans: Protein is kept low, in the neighborhood of 50 grams; the total calories are kept low, not over 2200; carbohydrate is kept relatively low, not over 100 grams. Newberg's diets depend largely on fat for calories but at the same time a mild grade of undernutrition is strongly advocated.

In strict opposition to the low carbohydrate, high fat diets of the Michigan group are the high carbohydrate, low fat diets of the Sansum and Gehlyn group. Independently, Sansum in California and Gehlyn in New York, some ten or more years ago, decided that there was no reason why diabetics should not have diets con-

taining as much carbohydrate as ordinarily eaten by normal people. They reported that the efficiency of insulin was much greater in connection with these diets and that in their opinion the tolerance of the patient increased more rapidly. Johns of Cleveland and Rabinowitch of Toronto also use the high carbohydrate diet. In regard to fat there is some division of opinion. Rabinowitch in particular believes in the low fat diet, restricting his patients to 40 or 50 grams. On the other hand, Gehlyn gives normal amounts of fat; namely, up to 100 or more grams. In fact, Gehlyn's diets are really normal diets in that they contain the usual amounts of protein, fat and carbohydrate eaten in this country. Gehlyn believes in the full nutrition for diabetics while Rabinowitch believes in mild grades of undernutrition.

Between the two extremes we find the master of diabetic treatment, Dr. Joslin. He feeds his patients normal amounts of protein; that is, a gram to the kilo of weight. He has always insisted on undernutrition. He has had a healthy fear of fat and has never fed his patients more than 100 grams. The highest diet in his diet list contains 2100 calories. Carbohydrate in Joslin's diets ranges from 100 to 200 grams. Thus, Joslin's diets are intermediate between the extremes of Newberg on one hand and Sansum and Gehlyn diets on the other. As a subdivision of the Joslin group one might refer to the midwestern group represented by Wilder of the Mayo Clinic. They agree with Joslin as to the use of protein and carbohydrate but take a more liberal view than Joslin in regard to the use of fat. Neither Wilder nor I would hesitate to give to a hearty, hard-working farmer or carpenter 2600 or more calories a day. This means that we use more fat than Joslin does, especially to people who are engaged in very active occupations.

What dietary plans will the internist choose for his diabetic patient? Is there any real difference between the various systems of treatment? Which one results in the patient's keeping himself free from sugar? Under which dietetic management will the diabetic live the longest? On which will he be the happiest? I should like to say that I have seen patients placed on each of these systems of dietetic management. All of them work well in the hands of their respective advocates. If we know anything about man's diet, we know that he can get along, from every viewpoint physiologically, on diets of wide variation; from that of the Eskimo, which is purely protein and fat, to the Chinese and Asiatic diets, which are mainly carbohydrate. The diabetic is not different from the normal individual provided insulin is

supplied, and in the management of diabetes I do not believe it makes much difference what dietetic school of thought one prefers as long as one bears in mind three simple but essential rules. On these I believe the long life and happy existence of the diabetic depends.

The first rule is that which we have always tried to follow since the beginning of the treatment of diabetes; namely, keep the patient's urine sugar-free and his blood sugar as close to the normal as possible. This is an almost universally accepted axiom, probably the most generally accepted principle that we have; and the reason is easy to find. Since the days of Minkowski and Von Mering it has been the experience of those interested in the treatment of diabetes that if one keeps the patient sugar-free the patient's own carbohydrate tolerance is best preserved. It has been the experience of such men as Joslin that patients who keep sugar-free year in and year out, day after day, preserve at the highest level their own inherent ability to burn carbohydrate. Occasionally one sees those rare patients who for many years have "carried sugar in their urine" and yet seemed to have as good a carbohydrate tolerance as they ever had. They are certainly the exception to the rule. The patient who constantly has sugar in his urine loses his tolerance for carbohydrate. This principle holds whether he is taking insulin or not. Because a patient takes exogenous insulin does not preserve his own ability to make insulin unless he keeps sugar-free. Hyperglycemia is the strongest stimulus to the secretion of insulin; but if this stimulation is overdone without rest or a period of decreased activity on the part of the islet cells they become exhausted. (Such is the interpretation of pathologists who have made the most extensive study of the islet cells following diabetic coma. This is the theory of exhaustion.) My own experience leads me to believe that it is correct, for certainly those patients with constant amounts of sugar in their urine sooner or later lose tolerance. Allen, in his beautiful experiments with partially depancreatized dogs, confirms these clinical observations. Dogs who were overfed and had sugar constantly in their urine became steadily worse; whereas dogs sugar-free held their tolerance or improved it, particularly if they became lean and muscular.

The theory has been advanced that a little sugar in the urine is a good thing on the principle that mild grades of hyperglycemia stimulate the pancreas to its best efforts. The fallacy of this theory lies in the fact that high grade hyperglycemia is not, as far as we know, necessary to stimulate the islet cells to action. Ordinarily, rises of the blood sugar to 100, 120 or 150 are sufficient to stimulate the production

of insulin. Those who believe in this theory suggest that when the disease is of long standing it requires higher levels of hyperglycemia to stimulate the islet cells. I know of no direct evidence that this is true. I, myself, believe it is an essentially dangerous principle to allow any diabetic to have sugar in his urine. It is impossible for the layman to tell whether he has large or small amounts of sugar in his urine, and if he is allowed to have any sugar at all the danger is that he will have large amounts before he is aware of it; or, more important still, before his physician is aware of it. But if one sticks to the principle that any sugar is too much one has a test for the adequacy of treatment that is definite, concrete and unmistakable, even to the most ignorant patient.

The second reason why the patient should be sugar-free is that his strength, energy and ability to do his work are at their best when he is in this condition. Patients have told me over and over again that they feel stronger and can do their work much better when they are sugar-free. The listlessness and lack of energy are striking in a diabetic who has much sugar in his urine.

The third reason for keeping the patient sugar-free is that his resistance to infection is at its best. Here is one of the most important reasons why the diabetic should control his urine sugar. If the child with diabetes now has a life expectancy of forty years he is going to experience in the course of that time a multitude of minor infections. From my experience I feel it is quite certain that if the diabetes is controlled the diabetic individual has as good a resistance toward infection as a normal person. I fail utterly to see any difference between his ability and that of normal persons to withstand the most severe grades of pneumonia, cellulitis and peritonitis, providing he has been sugar-free for long periods of time preceding the onset of the infection. Some of you will not agree with this statement but I think I could show you individual case records that would amaze you, showing as they do the normal ability of diabetics to withstand severe infection.

And the fourth reason for keeping the patient sugar-free is that arteriosclerosis is best deferred when the diabetes is carefully controlled. Joslin emphasizes this by pointing out that pathologists find as much arteriosclerosis in children with diabetes that has been poorly controlled as in the individual who dies late in life. The relationship between diabetes and arteriosclerosis is as much a mystery as ever. To my mind there is no relationship between fat metabolism and arteriosclerosis. The evidence against that theory presented by those who do not believe in cholesterol and its role

in the causation of arteriosclerosis far outweighs the evidence suggested by the proponents of the theory. Clinical experience would confirm the belief that controlled diabetes defers the onset of arteriosclerosis.

For these four reasons the first principle, namely, keeping the patient sugar-free, has been universally accepted. The second principle in the treatment of diabetes is to reduce overweight diabetics to normal weight or slightly subnormal and to keep them there permanently. The degree of undernutrition should be not more than 10 per cent. It has been realized always that obesity is common in diabetics, but the principle of undernutrition was first emphasized in preinsulin days by Allen. His animal experiments showed that diabetic dogs did exceptionally well when they were kept very lean and in an undernourished state. When this principle was applied to the human it developed the first great advance in the treatment of diabetes, what Joslin has called the "Allen era." The gift of insulin has not decreased the importance of undernutrition. Obesity tends to increase the necessary dose of insulin. If one reduces obese patients it is easy to demonstrate that the patient's carbohydrate tolerance is increased. I do not mean to say that this is strikingly apparent in all instances, but it is apparent to some degree. Furthermore, it is just as important for the diabetic to reduce as it is for the normal individual and perhaps more so because the diabetic is more susceptible to arteriosclerotic coronary disease than is the normal individual.

All clinics interested in diabetes agree on the necessity of undernutrition and the desirability of reducing the weight of the fat diabetic.

The third principle is, in my opinion, the most important of the three. This principle is, giving a diet to the diabetic patient which he is best able to measure or weigh and which he will adhere to, day in and day out. I mean by this principle that it is more important to give the patient a diet which he likes than it is to follow some theoretically correct proportions of protein, fat and carbohydrate. Thus, it is often easier to have a patient take a diet that has a liberal amount of carbohydrate than it is to take one which is severely restricted in carbohydrate. In handling many diabetics one soon learns that there is a low limit below which one cannot go and still make the diet so attractive that the patient will adhere to it year after year. In the preinsulin days it was small wonder that patients did not adhere to the strict diets used. They were too rigid for any normal human being to follow. In my experience 150 grams of carbohydrate gives the opportunity to make a menu that contains a goodly variety and

enough of the higher carbohydrate-bearing foods to satisfy the average individual. This same principle applies to the fat. Extremely low fat diets are just as difficult as extremely low carbohydrate diets. One only needs study the menus of normal people to find out how much the American people enjoy eating fat. In studying the diets of medical students I am amazed at the large amounts of fat that they often consume. But the point that I particularly want to emphasize is that whatever mixture of foodstuffs results in the patient's continued use of a measuring device, is by far the best diet to choose for that particular diabetic. It is essential that a diabetic measure his food, at least in those cases which are severe enough to need insulin. If the diet is lop-sided, if it contains too little or too much carbohydrate, if it contains too little or too much fat, the result will be that the patient will not follow it over long periods of time and it is for this reason that I follow the middle of the road as far as diets are concerned and use moderate amounts of all three foodstuffs. If, however, the physician finds that his patient will follow a high carbohydrate, low fat diet better, I should unhesitatingly endorse that diet for him.

In the light of the three principles, namely, keeping the patient sugar-free; keeping his weight to normal and, finally, giving him the diet that he is most likely to follow indefinitely, what are the weaknesses and strong points of the three types of diets that are used in this country? Let us take them up one by one. The weakness of the high fat, low carbohydrate diet is that it is difficult to adhere to because it does not provide enough variety in carbohydrate foods. Its strength lies in the fact that blood sugars are very easily controlled and that insulin dosage is not very high. Lastly, there are few insulin reactions.

The weaknesses of the high carbohydrate diets are, first, it is difficult to control blood sugar and urine sugar; second, practically all diabetics must take insulin. When diets are high in carbohydrate the majority of diabetics will have to have some exogenous insulin to keep them sugar-free; third, it is difficult to measure the diet when there is a large amount of carbohydrate. The patient says he is getting as much to eat as a normal person, and so, why measure it? Yet one cannot balance insulin against carbohydrate unless one measures it. The strong point of the high carbohydrate, low fat diet is that it is an ideal diet for reducing the overweight. This is true of the nondiabetic and it is just as true of the diabetic. However, after the patient's weight is reduced I see no reason why he should not have fat in sufficient quantity to keep his weight stationary, and

I believe it is better to use less carbohydrate and more fat because in the end the patient will be more satisfied with his selection of foods. The diets with moderate reduction of carbohydrate using fat in proportion to the weight of the patient have the strong points I have already emphasized, namely; that there is enough carbohydrate allowed to give a variety to the diet so that the patients will usually adhere to them; second, it uses fat to season the food and make it taste better, which is another point in favor of making him adhere to his diet and, finally, there is not so much carbohydrate but that the glycosuria can be controlled by moderate doses of insulin.

NEW FORMS OF INSULIN

I have felt rather embarrassed in discussing the dietetic principles used in diabetes because it is such an old and hackneyed subject; but we now pass to a phase in the treatment of diabetes that is new and of great interest.

For the last two years new forms of insulin have been put forth which have resulted in another aid to the treatment of this disease. For many years efforts had been made to mix insulin with materials which would delay its absorption so that small amounts of insulin could be liberated into the circulation over long periods of time. One of the first things that was discovered after insulin was available was that the best way to administer it was in hourly doses throughout the day but, of course, this is practically impossible. The only way such a condition could be accomplished would be for the insulin to be in a condition which would delay its absorption. Hagedorn of Copenhagen discovered that by combining insulin with protamine (a protein derived from the sperm of a fish) the insulin was precipitated in a fine emulsion. When this combination was injected subcutaneously the insulin was slowly liberated from the protein. Thus was accomplished the long sought slow acting insulin. The second step of advance in this field was brought about by the discovery that a metal (zinc) when combined with insulin, either with or without protamine, will also prolong its action. The present most widely used slow acting insulin is a combination of insulin with both protamine and zinc, the so-called protamine-zinc-insulinate.

When protamine-zinc-insulinate is injected subcutaneously its action continues for from twelve to twenty-four hours and possibly longer. In fact, when using protamine insulin, one has to give it over several days' time before the patient obtains the maximum insulin effect. This suggests that there is a left-over from day to day or an accumulative action. Ordinary insulin acts for from six to eight hours so that pro-

tamine insulin prolongs the effect of ordinary insulin from three to four times. One of the problems that those using insulin have always met, especially in the severe cases, has been the control of the early morning glycosuria. During the day it was possible to control the hyperglycemia by two or three injections of insulin, but since a dose of insulin must be given just prior to the evening meal there is a period of time amounting to from twelve to thirteen hours during which the diabetic does not receive insulin. Even if a small dose is given at bedtime there still remains some seven or eight hours. If the diabetes is moderately severe the stored up glycogen in the liver will begin to come out into the blood stream after a period of five or six hours after the last dose of insulin. Thus, in this class of diabetics the highest blood sugar during the day will be just prior to breakfast. It was this difficulty that stimulated Hagedorn to work out a form of insulin that would act slowly, and his first use of protamine insulin was to give it in the evening so that it would continue to have an effect for twelve successive hours. This is the method that is followed by some; to give a dose of protamine insulin with the evening meal and a smaller dose of regular insulin preceding breakfast. The dose of protamine insulin with such an arrangement should be a great deal larger than the dose of regular insulin, usually twice as large. Another method of administering this form of insulin is to give it in the morning, cut down the amount of carbohydrate in the breakfast and make the evening meal a much larger one. At the same time it is necessary to give a small dose of regular insulin at the same time that the protamine is given in order to get an immediate action on the blood sugar. This procedure results in the greatest effect of the protamine occurring at the time of the evening meal and the latter can be increased in size and amount of carbohydrate over the other two meals. For such patients as this arrangement would appeal to the plan may be tried. A third method that I am using on a few patients is to give but one dose of protamine a day and to give that at bedtime. One of the beauties of protamine insulin is that we usually do not fear a reaction before eight or more hours have elapsed; thus, one can give a rather large dose at bedtime with a reasonable reassurance that there will be no reaction before the breakfast hour. This brings the maximum effect in the middle of the morning, just before the noon meal. Its advantages lie in that only one dose of insulin need be given per day. As much as fifty or sixty units have been given at this time. I understand that in other clinics larger doses by the single dose method have

been used, up to as much as one hundred units in one injection.

Theoretically one would expect that protamine insulin would be required in smaller doses than regular insulin. This has been found to be true in other clinics but not in my experience. However, there are much fewer reactions following protamine insulin than with the old rapidly acting insulin. Nevertheless, reactions do occur and, to make matters rather difficult, they occur at very odd times. With the old rapidly acting insulin we knew when a reaction was most apt to occur. It would occur usually from three to six hours after a dose of insulin. But with the new protamine a reaction can occur at any time, day or night. The encouraging feature, however, is that the reactions are not severe and are decidedly milder than with old insulin. However, they are apt to be persistent; that is, after a reaction is treated with sugar and the patient feels normal again, the condition of hypoglycemia is apt to recur an hour or two later. In other words, one is apt to get a repetition of the insulin reaction because of the slow acting nature of protamine. It is in those patients who have had many severe reactions that I find protamine insulin most useful and they are the ones who are most enthusiastic over its use. This is the type of patient that has had difficulty in controlling the sugar and at the same time avoiding insulin reactions. In these same patients the swing of the blood sugar has been extreme and they go from hyperglycemia amounting to 200 or 300 mg. per cent in the morning to a severe reaction at noon or following the evening dose. In using protamine the excessive morning hyperglycemia is controlled and the insulin reactions tend to disappear.

During the last eight months we have given protamine insulin to eighteen patients. Our selection of patients depended on the patient's willingness to experiment with the new insulin and keep under close observation. They were all ambulatory. The results with the use of protamine insulin may be classified under several heads. First, there were three complete failures. When these few patients were placed on protamine insulin in equal or greater doses than they had been taking of regular insulin, they showed large amounts of sugar in the urine and continued to do so after several weeks of trial. All three were glad to go back to regular insulin. Why protamine insulin did not control the glycosuria I cannot say. The first case to whom protamine insulin was given was one of these failures and thereafter I was cautious in recommending protamine insulin to patients who were doing well with regular insulin. I should like to emphasize that protamine insu-

lin is experimental in each patient. One does not know whether it will act well or whether the patient will be one of the few who do not respond to it. Certainly there are many more patients who do poorly on protamine insulin than who do not respond well to the old insulin. In fact, there are very few if any patients who are resistant to regular insulin in the sense that these patients are resistant to protamine insulin.

Ten of the eighteen patients could be classified as showing about the same degree of control with protamine insulin as they showed with regular insulin. The same amount of protamine insulin was required as with regular insulin and most of them had to take the same number of doses. It must be said, however, that in those cases where frequent insulin reactions had taken place when using regular insulin few if any reactions occurred when protamine insulin was given.

Four patients were definitely better controlled with protamine insulin than with regular. That is, they were the type of diabetic who had great difficulty in keeping sugar free and at the same time avoiding insulin reactions. These four prefer protamine insulin to old insulin.

Out of the eighteen patients there are only three who were able to reduce the number of injections of insulin after taking protamine insulin. The great majority of those taking protamine insulin are taking it in the evening and one dose of regular insulin in the morning. Three patients are taking but one dose of insulin a day where formerly they took two.

It has been stated that about 20 per cent of the patients taking protamine insulin are able to reduce the size of the total dosage as compared with what was necessary when taking the old insulin. So far in our experience we have had no patients whose dosage with protamine insulin does not equal or exceed the dosage of the old insulin. The dosages of protamine insulin are practically equal to the dosages given when the old insulin was used.

We would summarize our own experience with protamine in this way. It is a definite help in the treatment of diabetes. As a modification of insulin it has its use in some patients. In our experience there are some patients whose glycosuria is not controlled as well with protamine insulin as with regular insulin. In those patients who have a rapid shift in blood sugar during the day, especially with hyperglycemia in the morning and reactions at other periods of the day, it is of considerable value. It is often most useful when it is administered as the evening dose of insulin, the morning dose of regular insulin being smaller.

A splitting of protamine insulin into protamine and insulin apparently takes place at the site of the subcutaneous injection. It is possible that this splitting process is assisted by hydrogen ion concentration of the tissues. It is conceivable also that some enzymatic action may take place. It is also probably dependent upon blood supply, or it conceivably may be influenced by immunological reactions. One of my patients had to stop protamine because it gave her intense headaches and another because of intense local reaction. All these processes may influence the rate of dissociation between protamine and insulin so that there will be no constancy in the rate of dissociation from day to day or from patient to patient. It seems to me in these preliminary observations that there is a distinct inconstancy from day to day in the availability of the insulin of protamine insulin. I believe that this is one of the inherent weaknesses of protamine insulin in contrast with the dependability of regular insulin.

It goes without saying that protamine insulin should not be used whenever a rapid control of the glycosuria is necessary, such as in acidosis or where diabetes is complicated with infection. If it is desirable to give sugar intravenously, it would be necessary to use old insulin.

ROLE OF THE PITUITARY AND THE ADRENAL GLANDS IN INFLUENCING THE DIABETIC STATE

The most fascinating work in the experimental field of diabetes has been the researches of Houssay. To appreciate Houssay's work let us call to mind that the depancreatized dog has been a well standardized experimental animal. When the pancreas was removed the animal became completely diabetic, suffered from severe acidosis, its wound refused to heal and in a few days it died in diabetic coma. Houssay showed that if the pituitary gland be removed prior to pancreatectomy the diabetes was modified in a most amazing way. Without insulin the wound healed, the output of sugar was not very great, there was no acidosis and if the animal were killed and the liver examined as much as 3 per cent of glycogen was found. Animals lived for several months but lost weight rapidly. They were diabetic and if sugar were given it would be almost completely excreted; the blood sugars were always elevated to high levels and the respiratory quotients in the main were low. Houssay postulated a hormone from the pituitary which influenced the islet cells. If extracts from the pituitary were given a dog of Houssay's experiment, it became much more diabetic; and if these extracts were given to normal animals over long lengths of time, glycosuria might result. There is a great

deal of contention by experimental endocrinologists as to whether this diabetic hormone exists or whether the results of the removal of the pituitary on diabetes are explained through the absence of thyrogenic and cortical-adrenal hormones. Nevertheless, it is apparent that diabetes can be remarkably modified by the pituitary gland.

No less startling is the work of Long on cats. He has shown that the removal of the adrenals also modifies pancreatic diabetes to a marked degree. After removal of the adrenals in pancreatectomized cats the animals show periods of hypoglycemia which can be relieved by injection of sugar. These animals like Houssay's dogs live for several weeks instead of dying in a few days as they would after pancreatectomy alone.

At present the results of this experimental work have no application to the treatment of diabetes. It does no good to try radiation to the pituitary gland in diabetes. Nevertheless, one cannot help but feel that from these experimental studies we may be able at some time in the future to learn how to modify diabetes to such a degree that the disease will be of mild nature.

DIABETES AND SURGERY

In closing I want to say a few words about the surgical aspects of diabetes, not in respect to diabetic gangrene which is a subject of itself, but rather, in an ordinary run of surgical incidents which may occur in the course of the life of any diabetic. If the diabetic is in good condition and has been kept sugar free, he is ready for an operation at any time. Long periods of anesthesia should be avoided but in my experience the diabetic stands operations remarkably well. Following the operation great care must be taken to use enough insulin to keep diabetics sugar free. Subcutaneous saline especially is needed by the diabetic. Intravenous glucose should be administered just as though the patient were not a diabetic. It is the job of the internist to give enough insulin with the glucose to control the glycosuria. The successful management of these cases depends a great deal on how constantly the house staff is in touch with the diabetic condition of the patient. Many urine specimens must be examined throughout the day and night and the patient must never be out of diabetic control. The surgeon may expect to treat postoperatively the diabetic in much the same manner as he would a nondiabetic. It is the internist's duty to control the diabetes at all times.

It goes without saying that the patient's general condition aside of his diabetes, that is, the effect of arteriosclerosis on heart, kidneys and

brain, must have a great deal of weight in deciding upon surgical procedure. But I feel that diabetes itself can be so satisfactorily controlled with insulin that at no time postoperatively should the diabetic condition ever be out of control. In my experience the ability of diabetic tissues to heal is almost normal, under those conditions that I have already emphasized; namely, that the diabetic should have been under complete control for a long period previous to operation, and second, that after the operation the control of the diabetes is complete.

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HYPERSENSITIVITY TO PITUITARY EXTRACT

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AND

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AND

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The phenomenon of hypersensitivity response to the injection of posterior pituitary extract into the human body is not common. In 15,000 obstetrical histories taken from five Kansas City hospitals and all the shock histories in these hospitals we found only two cases which we will report here. With the wide use of this extract by the dermatologist, internist, endocrinologist and the obstetrician one would expect to hear more frequent mention of this reaction.

The Alfred Benjamin Dispensary has used injections of pituitary extract extensively. There have been reactions to this extract which we can divide into muscular and vasomotor types. The former type responded to the injections with marked bowel activity with or without eye muscle and uterine muscle contractions. The latter type responded with faintness, skin flushings, extreme nervousness, heart palpitations, headaches, weakness and delayed ability to work for several days, and as a general rule there was a drop in the diastolic and systolic blood pressures. In both these types many patients had mixed symptoms. All the cases were hypersensitive to the extract but they received subsequent doses of smaller amounts without marked reactions; therefore, such patients were not sensitized to that extract; they merely received too high a dose at the initial injection.

The rare type of sensitivity with which we are concerned is the peculiarly sensitized case which responds repeatedly to minute doses with the usual profound shock syndrome of urticaria, itching, drop in blood pressure, cold white skin,

dyspnea, fast pulse, swollen tongue, loss of speech, edema, lack of thirst, sense of impending death and semiconsciousness.

In the modern literature we found reports of sixteen recorded cases, four of which were foreign abstracts whose original reports have not been obtained. In the twelve cases we have studied five were reported by one man, nine were obstetrical yet only five cases were reported by obstetricians. Hasson and Koons recorded reactions which they did not retest while Wang and Bird have given us excellent well proved cases. Stein recorded a peculiar atypical case with the reactions totally muscular in type (such as hiccough). There was no shock syndrome. Simon and Ryder have published reports of five cases all of which occurred within two years. As allergists they made extensive studies and came to the following conclusions:

(1) Previous sensitization with the pituitary extract is necessary for a typical response later on when the next dose is given.

(2) Allergic cases are not necessarily predisposed by some other allergic state such as asthma or food sensitivity.

(3) The reaction is of some special peculiar type and is not similar to the anaphylaxis that can be produced easily in a laboratory animal at will because this pituitary reaction occurs only at rare intervals and cannot be reproduced.

(4) The specificity is not directly transmitted to the offspring because the children of these allergic mothers give negative reactions.

(5) This specific reaction is due to the pituitary organ protein. They obtained positive reactions in their cases when they used special pituitary gland extracts made from many different animals while other organ extracts from the same animals produced consistently negative results.

(6) The reaction is a gland protein specificity and is not due to hormone influence, i.e., the vasopressor and oxytocic principles of the extract are not involved in the reaction.

McMann reports having observed a case of abortion pass into the shock syndrome after receiving pituitrin and his problem was to decide whether the shock came from allergy or hemorrhage. He proved that it was due to pituitrin sensitivity. We wish to report two new cases of sensitivity to pituitary extract.

REPORT OF CASES

Case 1. Mrs. T. D. F., aged 29, gravida two and due September 16, 1920. Her past history was of no consequence. Her first child was delivered with low forceps on May 10, 1918; soon after this delivery she received injections of 1 cc. pituitary extract and the same amount of ergot. The puerperium was uneventful. In the early prenatal period of the second pregnancy she suffered for two months with severe head-

ache, nausea and vomiting. September 6, 1920, she entered the hospital at midnight with slight irregular pains which came every three minutes by 2 a.m. and she received $\frac{1}{8}$ grain of morphine. At 3 a.m. she received $\frac{1}{2}$ cc. of pituitary extract hypodermically by a nurse's mistake. Immediately the patient's screams filled the obstetrical ward. Tetanic contraction of the uterus followed and the abdominal pain was very severe. Scopolamine 1/100 grain hypodermically was given immediately and she was wheeled to the delivery room. At 3:30 a.m. under deep ether anaesthesia a thin 2/3 dilated cervix was enlarged manually and a podalic version was performed with difficulty because the uterus remained contracted even under the deep anaesthesia. The placenta was expelled voluntarily while she was still asleep. The pulse was 110 one half hour later. When she awoke she complained of great pain in the abdomen and her face, neck and body were covered with a mass of itching urticaria. (The uterus still remained in tetanic contraction.) Hypodermics of morphine $\frac{1}{4}$ grain and scopolamine 1/100 grain gave her some relief but she cried all day and night from the pain even after 3 grains of morphine had been given hypodermically. The urticaria however soon disappeared and her face became less swollen but the uterus remained hard. On September 8 the temperature, pulse and respiration were normal (the uterus soft) and the patient was fairly comfortable except for severe after-pains. That night she was comfortable but the following day she was crying again from intermittent abdominal pains which 1 cc. ergot hypodermically did not relieve. One cc. of pituitary extract hypodermically immediately produced all the effects of the first night's experience. The record note says the patient looks as if she had been eating shrimp or strawberries and then had a ruptured ectopic pregnancy. She was in shock with a very fast pulse but not pulseless, generalized edema, face swollen excessively, tongue swollen, generalized urticaria and a tightly contracted uterus. Although she received numerous injections of $\frac{1}{4}$ grain morphine and 1/100 grain of scopolamine she was very weak and moaned all day from the abdominal pain. The urticaria disappeared soon after the first injection. That evening she was comfortable and smiling. She was weak and tired but not in shock. That night she received one morphine-scopolamine injection for pain and the following day and thereafter she was free from pain, shock, urticaria, edema and the uterus remained soft. She was discharged on the fourteenth day with an uneventful recovery. She has not been seen since her discharge.

Case 2. Mrs. M. L. H., aged 28, multipara 3, American, white, housewife. Her second baby was delivered in the hospital and she received a hypodermic of 1 cc. of pituitary extract during the third stage of labor. During her third labor she entered the Kansas City General Hospital on March 17, 1936, at 2 p.m. During this ninth month of pregnancy she had had several bad headaches, some dizziness, swollen ankles and spots before the eyes. At entrance to the hospital her temperature was 99, the pulse 104 with a blood pressure of 116/76. The eyegrounds revealed a generalized edema of the retina and urine showed a moderate albuminuria. At 4:15 p.m. she delivered a baby girl of 2962 grams and was immediately given a hypodermic of 1 cc. of pituitary extract. Five minutes later she complained of severe itching of her face and body. The placenta was delivered spontaneously at 4:25 p.m. and in five minutes she became nauseated and soon vomited. Very shortly dyspnea became intense. The tongue became swollen and soon she was unable to talk and she told us later that she thought she was going to die. Her face and body now developed masses of urticaria, the lips

and eyelids became highly swollen, the skin cold and pale, the pulse very fast and musical rales could be heard throughout the chest. At 4:45 p.m. 1 cc. adrenalin 1/1000 was given hypodermically and all signs and symptoms of allergy gradually receded except a severe low abdominal pain which persisted for several hours. It was then noted that the uterus was very firmly contracted and painful to palpation. The patient was carefully observed for four days and seemed normal in every way. On March 21, one drop of obstetrical pituitary extract was administered intradermally as a test. Five minutes later she responded with a reaction of itching, urticaria, moderate shock, sense of impending death and severe abdominal cramps. The uterus protruded in the abdomen and was exceedingly hard and tender. These symptoms were relieved with a hypodermic of 1 cc. of adrenalin 1/1000 and $\frac{1}{8}$ grain of morphine. The injection site had $\frac{1}{8}$ cm. wheal surrounded by a 4 cm. erythema area which persisted for the following forty-eight hours. This same extract intradermal test proved negative in twenty-five other puerperium patients in the same ward and thirteen of these test subjects had had previous injections of pituitary extract. The baby girl of this sensitive mother did not respond in any unusual way to a one drop intradermal test with pituitary extract. For six days the patient was left alone with the hope that she might duplicate with a delayed reaction such as reported by Simon but this did not occur in our case.

The patient responded to scratch tests with various dilutions of water as follows:

Pituitrin	Water	Result
1 drop	12 drops	Moderate positive
1 drop	1 drop	Moderate positive
2 drops	1 drop	Very positive

She was then subjected to the following scratch tests:

Pituitary extract (obstetrical), positive
Pituitary extract (surgical), positive
Pitocin, negative
Antuitrin, negative
Anterior pituitary liquid, negative
Theelin in oil, negative
Corpus luteum, negative
Ergot, negative
Magnesium sulphate 50 per cent, negative
Sterile water, negative

It has been said that alcohol will neutralize the pituitary hormone. Our scratch tests were as follow:

Pituitrin	Alcohol	Result
1 drop	12 drops	Negative
1 drop	8 drops	Slight positive
1 drop	4 drops	Slight positive
1 drop	2 drops	Moderate positive
1 drop	1 drop	Moderate positive
2 drops	1 drop	Very positive

Dr. J. I. Hofbrauer in a personal talk with one of us insisted that magnesium sulphate injected into the veins of an eclamptic woman neutralized the pituitary hormone in that woman. Our scratch tests with the hormone diluted with magnesium sulphate were negative in all dilutions from one to twelve. Evidently the sulphate neutralized the protein as well as the hormone effect of the pituitary gland.

We made a local transfer test upon two ward patients with negative scratch tests and both were positive, which agrees with Simon's conclusions. One day later the tests were again repeated in the same patients

and they were both positive again but in less marked degree.

DISCUSSION

All the cases reported in the literature had received a previous sensitizing dose of pituitary extract and our cases followed the same dictum as emphasized by Simon. Neither of our cases had ever had allergic symptoms before the events which we have just related. The offspring of our second case evidently had not received hypersensitivity by transmission through the placenta.

In the literature, typical allergic shock was present in all of the cases except Stein's which was an atypical case with symptoms of muscular reactions only, yet his patient was very hypersensitive to the pituitary extract. Our two cases not only responded with the usual allergic syndrome but also showed supersensitivity of muscular contraction of the uterus.

In the studied cases the allergic reactions generally occurred within ten to thirty minutes after the injection. In one of Simon's cases, however, the reaction was delayed six days before it appeared. Our cases reacted immediately and our six day wait was without results.

Our two cases were unusual in that the allergic reaction with shock was also accompanied with the excessive oxytocic action upon the uterus which Simon so emphatically denied. In our second case one drop of pituitary extract hypodermically reproduced the original syndrome in more moderate proportions yet with enough severity to urge us to use adrenalin and morphine as soon as possible. Our scratch tests when positive produced large wheals at the local site without any evident systemic or uterine effect.

Since our original pituitary extract was a P. D. Co. preparation advertised as of very low protein content we purposely tested all available P. D. Co. extracts of pituitary origin. No other extracts except the pituitary extract (obstetrical and surgical) gave positive tests, which is contrary to Simon's report. His cases responded to numerous extracts of pituitary gland origin and his conclusion was that pituitary gland protein was responsible for the allergic phenomena. Our meager experimentation compared to his, failed to give us similar reactions.

Pituitary extract "neutralized" with dilutions of alcohol gave positive scratch tests to the eighth dilution. From clinical observation we believe that alcohol will neutralize the pituitary hormone effect upon the human pregnant uterus but it did not counteract the "protein" reaction in our case. We are of the opinion that shock and urticaria are produced independently of the excessive oxytocic response of the hormone

yet we insist that both reactions do occur as an allergic phenomenon response to pituitary extract. This fact is well known by the marked effect which one drop of the hormone caused when injected intradermally in our second case.

Adrenalin given hypodermically is the treatment of choice and produces marked results within twenty to sixty minutes while morphine and scopolamine in large doses were very slow in giving even incomplete relief.

In future studies of these cases of hypersensitivity to pituitary extract we should try to separate the etiological factor. The antigen might be the anterior or posterior pituitary gland protein, the hormones from each one of them or their histamine content, or all.

SUMMARY

We report two new cases of allergic sensitivity to obstetrical pituitary extract.

Our cases were unusual in that they gave proved tests that pituitary extract was the cause and the reaction showed oxytocic effects as well as the usual allergic reactions.

Magnesium sulphate neutralized our scratch tests while alcohol did not do so.

Lastly, we wish to express a reasonable doubt as to the correctness of Simon's belief that this allergic reaction is totally due to the protein content of the pituitary gland.

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METASTATIC TUMOR OF THE HEART

Maurice A. Schnitker and Orville T. Bailey, Boston (*Journal A. M. A.*, May 22, 1937), describe the case of a patient in whom cardiac disturbances developed resulting from metastatic carcinoma of the heart, which was diagnosed clinically. The primary tumor was in the right main stem bronchus and reached the heart by direct extension, with associated auricular flutter. Only one other instance of auricular flutter resulting from cardiac metastasis has been diagnosed before death, that one from a reticulum cell sarcoma of cervical lymph nodes (Fishberg's). A case of congenital rhabdomyoma of the heart and another of metastatic tumor of the pericardium had associated auricular flutter, but the neoplasms were not recognized in either instance during life. In the 3,570 necropsies performed in the Peter Bent Brigham Hospital (1913-1936) there have been in all nineteen instances of cardiac neoplasm, an incidence of 0.53 per cent. None of these except the one here reported was recognized during life.

POLYNEURITIS OF PREGNANCY: TREATMENT WITH VITAMIN B₁

A CASE REPORT

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Paralysis associated with pregnancy, exclusive of the better known types due to trauma, infections, etc., was first noted by Whitfield¹ to be more commonly associated with toxic vomiting of pregnancy. In 1932, Berkwitz and Lufkin² in a review of the literature were able to find only fifty-two undoubted cases. This would indicate the comparative rareness of this complication. To this group they added four cases of their own; three of them died. They stressed six points in this disorder; namely, (1) vomiting with onset as "physiological" in the second month progressed into the pernicious type in the great majority of cases and lasted for several weeks previous to onset of paralysis. (2) The onset of neurological findings was usually in the third or fourth month. Weakness, numbness and pain were first noted in the lower extremities but soon occurred in the upper extremities. As the neurological symptoms progressed they became characterized by flaccid paralysis below the knees and of the interossei, flexors and extensors of the fingers and wrists, by weakness of the thigh and arm muscles, stocking and glove anesthesia, loss of deep reflexes of the upper extremities, muscle atrophy of the involved parts, involvement of the vagus nerve, involvement of muscles of the diaphragm and larynx and deglutition, loss of sphincteric control, diplopia, varying degrees of hypochromic anemia, varying degrees of optic neuritis, pain and tenderness of involved parts and mental changes. (3) It was noted that improvement occurred only after therapeutic abortion and even then with a mortality of 25 per cent. (4) They stated death resulted, in a majority of cases, from intercurrent infections and exhaustion states. (5) Positive pathological findings in their cases consisted of peripheral nerve degeneration, petechial hemorrhages in the brain or spinal cord and invariably changes in the anterior horn cells. The latter included loss of Nissl substance, swelling of the cells, eccentricity of the nuclei and occasional cell necrosis. (6) The causative factor was ascribed to be that of an unknown toxin.

The possible role of starvation as a causative factor had been considered by Tuillant.² In 1933, Strauss and McDonald³ logically reasoned this disorder to be a result of dietary deficiency. This idea was based upon the facts that first, severe vomiting almost always occurs for weeks previous to onset of symptoms preventing the

patient from ingesting the proper amount of food. Second, deficiency diseases are proved to result from abnormalities of the gastro-intestinal tract⁴ and there is positive evidence indicating decreased secretory function during pregnancy.⁵ Third, during pregnancy the fetus utilizes all food materials and minerals necessary for its development regardless of the depletion of the mother. Fourth, the polyneuritis is not unlike the polyneuritis of beriberi and alcoholism but differs from the purely motor involvement due to lead and triorthocresyl phosphate (jamaica ginger, apiol).

Strauss and McDonald report three cases accompanied by gastric anacidity or hypo-acidity and macrocytic hypochromic anemia. All recovered on treatment including diet rich in vitamins, particularly vitamin B₁ and adequate amounts of absorbable iron and adequate caloric content. In one case a therapeutic abortion was done previous to the patient coming into their hands; one spontaneously passed a macerated fetus and one was delivered of a normal baby at full term.

REPORT OF CASE

A white woman, aged 17 years, married, was admitted to State Hospital No. 2 at St. Joseph, August 14, 1934. Last menstruation had occurred soon after February 1, 1934. Vomiting began April 1, slight at first, but becoming progressively worse. A therapeutic abortion had been done in another hospital in July (exact date could not be recalled). For two weeks before abortion she had vomited everything she ate and could retain only small amounts of water. She continued to vomit, but to a less and continuously decreasing extent for three weeks following abortion.

From a few days to two weeks following the abortion mental symptoms became noticeable. The patient told that her mother was also a patient in the hospital. She imagined black spots appeared on her skin. She would ask the nurse for two drops of blood put into her veins, imagined many people were sending her money and that it was pinned on her back. Memory impairment was marked. She could not remember the name of the town in which she had lived the last five years.

She remained in the other hospital about one month following the abortion. Immediately after returning home partial wrist drop was noticed bilaterally, soon becoming complete on the right. The definite time of onset of the paralysis of the lower extremities was undetermined as the family at first ascribed her helplessness to her extreme weakness and emaciation. At home she complained of pain in her legs only when being lifted or moved, when pain was severe.

Her previous menstrual history was negative. This was her first pregnancy. Her past history was essentially negative.

Family history was negative except that her mother died at 40 years of age and the cause was not known.

Physical examination at time of admission, August 14, 1934, revealed a well developed but emaciated white woman, aged 17 years. Temperature 98.8, pulse 120 per minute, respiration 26 per minute and blood pressure 94 systolic, 78 diastolic. Pupils were dilated greater than normal but reacted well to light and to accommodation. Eye-grounds appeared normal. Head, neck, chest and abdomen showed no gross abnormalities.

Heart was normal except for a tachycardia. There was a marked atrophy of the muscles of all extremities, particularly of the lower. There was a complete flaccid paralysis of all muscles below knees on both sides. A complete wrist drop was present on the right with atrophy of interossei on both sides, and extreme weakness of extensors of the left wrist. Weakness of extensors and flexors of elbows bilaterally was present. She could flex thighs on abdomen. Biceps, triceps, pronator and supinator reflexes were present and apparently equal bilaterally. Knee jerks and ankle jerks were absent as well as plantar response. Position sensation for toes, foot, leg, fingers and hand was absent. Vibratory sensation was absent over both lower extremities. Absent sensation to light touch extended upward on the right leg to midhigh anteriorly and to upper third of thigh posteriorly, and on the left leg upward to one inch below knee anteriorly and two inches above knee posteriorly. Impaired response to pain was present over dorsum of right foot and ankle and over plantar and volar surface of right foot and leg respectively, extending upward to junction of middle and upper third of calf. She complained of pain in the calf and thigh muscles and also in muscles of forearm, particularly when manipulated. All cranial nerves were apparently intact.

The urine was acid in reaction, sp. gr. 1012, albumin, reducing substances, acetone and microscopic examination were all negative. Blood Wassermann and Kahn tests were both negative. Spinal fluid drainage, August 16, 1934, in right decubitus position showed a pressure of 4 mm. Hg, and negative Queckenstedt test. Spinal fluid was clear and colorless. Cell count was 4, colloidal gold test was 0,000,000,000, globulin negative and Wassermann negative. Blood examination showed hemoglobin 70 per cent, erythrocytes 3,820,000, leukocytes 7100, segments 30 per cent, juveniles 8 per cent, small lymphocytes 55 per cent. P.S.P. kidney function test showed 70 per cent dye excreted in two hours. Gastric analysis following Ewald meal showed free hydrochloric acid absent in the fifteen minute specimen but normal acidity in subsequent specimens.

Her memory was almost nil, particularly for recent events. She insisted she had been in the hospital six months while actually the time was less than twenty-four hours. She insisted she had no husband, persisted in giving her age as 29 years, stated she was in perfect health and soon complained she could not walk. Emotional instability was marked.

On August 17, 1934, in addition to a regular diet, she was given brewers' powdered yeast in the amount of one and one half ounces daily. Not until August 30, 1934, was she placed on a special diet consisting of five oranges daily, one hundred and thirty grams of fresh animal proteins daily and a daily total caloric content of twenty-five hundred to three thousand calories. In addition she was given nine tablets daily of Meade Johnson's concentrated brewers' yeast.

Improvement in the mental condition was apparent at once and was pronounced normal on September 14, 1934. Improvement in the neurological findings also was prompt but progressed more slowly although progressively over a period of twenty months until time of discharge, April 9, 1936. Recovery from wrist drop was complete on September 21, 1934, at which time a marked increase in strength of all the muscles of upper extremities, except those innervated by the ulnar nerve on the right and muscles of the thighs, was noted. Also, on the same date, sensation to pin prick had recovered throughout, and the upper limit of disturbance of sensation to light touch of both lower and upper extremities had been definitely reduced. On September 24,

1934, blood examination showed 81 per cent hemoglobin, erythrocytes 4,315,000, volume index I, color index 81. The differential count was essentially normal except for a relative lymphocytosis of 44 per cent. On December 4, 1934, a blood Wassermann test was 4 plus. Antiluetic treatment was instituted at once consisting of weekly intravenous injections of nearsphenamine in 0.3 gram doses for eight weeks, followed by an eight week interval of weekly intramuscular injections of thiobismol (PD) 0.2 grams each. This treatment was continuous until time of discharge, April 9, 1936, at which time blood Wassermann and Kahn tests were negative.

On December 8, 1934, vibratory sensation of lower extremities had returned. The extent of diminished sensation to touch showed further reduction. Further improvement in muscle strength of upper extremities was slight. Paralysis below knees was yet complete although strength of thigh muscles showed definite improvement.

On April 16, 1935, volitional control of upper extremities seemed normal. Of the muscles below the knees, paralysis continued complete except for a marked return of power of calf muscles, particularly on the left. Disturbance of sensation to light touch had disappeared in the upper extremities and extended upward only to ankle on left leg, and well below knee on the right leg. Contracture of hamstring and calf muscles was quite marked, particularly on the right.

Examinations at intervals from this date until time of discharge, April 9, 1936, showed a gradual and progressive improvement in sensory and motor findings. She walked for the first time unassisted, December 28, 1935. At the time of discharge April 9, 1936, examination revealed the following: Normal sensations to light touch, pain and temperature throughout; complete return of deep muscle, joint and vibratory sensibility. Complete return of motor power of both upper and lower extremities. Patient was walking long distances about hospital grounds. Deep reflexes were within normal limits except for absence of knee and ankle jerk. Abdominal and plantar reflexes were normal. Contracture in consequence of the paralysis had entirely recovered in left leg and nearly recovered in the right.

The above is a case of polyneuritis of the beriberi type with mild hypochromic anemia. The former is known to be due to vitamin B₁ deficiency. The pernicious vomiting for two months gives ample time for development of deficiencies in all essential food materials. The memory defects and "confabulations" present in this case resemble at least closely those present in Korsakoff's psychosis. Attention has been called to the close relationship of the mental findings in the latter and in pellagra.⁶ It is my belief that the syphilitic infection present in this case is incidental and has only indirectly affected the course and outcome. The lymphocytosis present in the beginning can be explained as syphilitic in origin and the negative complement fixation and precipitin tests, present in the beginning, are probably the result of the extremely debilitated state.

Although improvement in this case was slow, it certainly was progressive over a period of twenty months under a specific and adequate

dietary régime and recovery was practically complete.

The doubt that this is a case of polyneuritis of pregnancy in view of the fact that recovery should have taken place sooner under this specific dietary régime, has been considered. However, the typical history of onset and development together with the typical neurological and physical findings, give assurance of the correctness of the diagnosis. The theory of vitamin B₁ deficiency as the etiological agent, while logical and in all probability correct, remains yet to be definitely proved. This statement is based on the theory that this disorder is relatively rare and that a large series of adequately treated cases from a great many clinics will be necessary before the theory can be accepted as absolute. Also, it may be argued, that continuously progressive recovery over a long period of time under adequate dietary treatment favors the correctness of the theory and diagnosis as much or more than if recovery had been prompt.

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The three cases of dissecting aneurysm of the aorta that T. E. McGeachy and J. E. Paullin, Atlanta, Ga. (*Journal A. M. A.*, May 15, 1937), report, in which a correct diagnosis was made before death, bring the total number to twelve, which is far short of those in which a diagnosis could have been made during life. The records of three others are also given in which the diagnosis was not made, in one of which no history was obtainable. This presentation is made in an endeavor to stimulate interest and thereby raise the number of correct diagnoses to a respectable percentage of the whole. Dissecting aneurysm of the aorta is an incomplete rupture of the aortic wall wherein the escaping fluid separates the layers of the arterial wall to a variable extent. There is usually a terminal rupture at some distant point, either externally or into the original blood channel. Rarely, spontaneous fibrosis and healing occur without a second rupture. The history, incidence, causative factors, clinical manifestations, physical signs, termination, laboratory observations, differential diagnosis and a summary of cases reported in the English literature are given.

HYPERTENSION CAUSED BY FOOD ALLERGY

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In making this report I realize that a small number of cases proves little but these cases are so unusual that I hope the report will stimulate a trial by fellow practitioners.

Hypertension has been recognized for years. Even before the advent of the sphygmomanometer clinicians were able to diagnose hypertension.

Almost every conceivable theory has been advanced to explain the condition but the fact that men of equal ability differ widely as to the cause of essential hypertension shows that to date there is no really satisfactory explanation of the condition. However, it is well established that some types of hypertension are caused by renal inflammation or obstruction, infection, both acute and chronic, endocrine dysfunction, etc.

A second group of "unknown origin" the cause of which is undetermined is known as essential hypertension and comprises the vast majority of hypertension cases. This group has been divided and subdivided by the authors of various articles on the subject.

Some advocate that essential hypertension is due to hardening of the arteries with consequent loss of muscle tonus of the arterioles. Certainly arteriosclerosis is abundantly proved by microscopic study of the hardened arteries. However, I am inclined to believe that arteriosclerosis has little to do with continuous elevation of the blood pressure. Every close observing physician has seen blood pressure that has been elevated for years drop to normal level or below in the course of an acute illness, such as pneumonia, typhoid fever, etc. Certainly the arteries did not return to their normal physiological condition during the short illness. Also, I shall show subsequently that by removing the offending food, essential hypertension of years' duration has come down to normal within seventy-two hours. Again the arteries did not undergo any visible change in their sclerosed walls.

I have just read the splendid article on hypertension by Dr. Walter Baumgarten, St. Louis, in which he has reviewed the subject to date and has added his own personal experience. He states: "This, then, (essential hypertension) forms the stage of fibrosis with fixed blood pressure which cannot be influenced by remedial measures."

Every practitioner knows how futile remedial measures, both medicinal and physiotherapeutic, prove to be in these cases. In this day of un-

restrained publicity most of our lay patients know the hopeless prognosis and eventual outcome of this disease. Therefore, I believe that any form of therapy that will relieve even a small per cent of these sufferers will amply pay for the trouble of locating the cause of the hypertension.

From recent experience I am convinced that certain foods, when ingested by individuals sensitive to that food, will cause continuous overstimulation of the vasoconstrictor nerves of the arterioles, thus raising the blood pressure as long as any of the food remains in the system. Furthermore, I feel justified in stating that most of the vasoconstrictor action is on the arterioles for I have repeatedly seen blood pressure of years' duration fall to normal within four days after removal of the offending food, and this in persons whose arteries were sclerosed and tortuous.

REPORT OF CASES

Case 1. A widow, aged 70 years, who had a stroke of paralysis a few days before I saw her. The attack occurred in a nearby city and she was treated in a hospital for forty-eight hours before being sent to her home where I saw her. When I first saw her she was mentally confused and unable to recognize friends except momentarily, was completely paralyzed in the right arm and leg and the left side of the face with partial paralysis of the muscles of deglutition and the neck of the bladder. She was about 5 feet, 3 inches in height and weighed 180 pounds, being about 70 pounds overweight; heart and lungs normal; arteries palpable and tortuous; blood pressure, systolic 230, diastolic 115; urine showed a trace of albumin and an occasional cast. Due to the hypertension and the general mental condition I gave codeine sulphate, gr. $\frac{1}{4}$ with nitroglycerine gr. 1/100 by hypodermic and ordered hot packs, which were repeated every four hours for twenty-four hours. The glonoin, gr. 1/100, was continued at two and a half hour intervals. The patient regained consciousness and was able to take magnesium sulphate per os; after the bowels moved the blood pressure dropped to 200/110 and remained fixed for four days. The patient in the meantime was taking liquid nourishment. The fourth day following the magnesium sulphate (note the lapse of time in this case) the blood pressure dropped to 140/80 and remained thus for ten days without glonoin or other medication. I was surprised at the drop in pressure and wondered what caused it. On the tenth day the patient was given a small helping of fresh pork. (She had been eating beef, chicken and fish and incidentally, she had eaten pork for years.) Four hours after having eaten the pork I was called as the patient had become very much worse.

I found her with face flushed, stertorous breathing and semiconscious; the blood pressure was 230/119.

I again gave glonoin and instituted hot packs and as soon as she regained consciousness gave magnesium sulphate by mouth. Soon after the bowels moved she was much improved and within twelve hours the blood pressure had dropped to 180/90 and at the end of twenty-four hours the pressure was 150/80 and the patient was able to sit up in a chair. The pressure remained as above for three days when I ordered a test meal on an empty stomach of roast pork, 3 by 3 by $\frac{1}{2}$

inch. Within six hours the blood pressure was 230/150; however, magnesium sulphate and a hot pack brought the pressure to 140/80 where it remained for several weeks, i.e., it did not go over 150/80 during that time. The patient was allowed any article of food except pork or pork products.

The paralysis improved and she was able to stand and to walk with assistance. At this time she was taken for an outing in a wheel chair, became chilled and contracted pneumonia to which she succumbed on the fourth day.

Case 2. A widow aged 70 years, of slender build and rather emaciated, a condition which she informed me had existed for years, had been told by several physicians at different times that she had high blood pressure. She had enjoyed excellent health on her farm until about six months prior to my first visit. She called her family physician in December, 1933, for a severe attack of asthma with hypertension. Her doctor stated that the pressure was 250/120. She continued to have asthmatic attacks varying from one week to one month until the time of my visit, March 20, 1934. I found her propped up in bed gasping for breath with a typical attack of asthma and with a very irregular pulse. The blood pressure was 240/130. Aside from the above the physical findings were negative. A hypodermic of adrenaline M7 and glonoin gr. 1/100 was given. This gave relief and I did not see her until the following Sunday when I was again called and found her in the throes of another attack of asthma. After giving temporary relief I called the next day and ran twenty food tests and found her sensitive to chicken and honey; likewise, spring pollens gave a positive reaction.

At this visit the blood pressure was down to 150/76 and she was free from asthma. In order to see if chicken was the cause of the asthma I ordered a test meal of stewed chicken for breakfast. This resulted in a severe attack of asthma with a hypertension of 250/130. I was unable to get her to try honey. The blood pressure dropped to 140/85 and remained under 150 mm. until her death in July. Death was due to asthma from grass pollen. Although she had severe asthma her blood pressure remained at a normal level.

Case 3. A man, aged 65 years, with negative past and personal history up to time of present illness. Consulted me in November, 1935, for excruciating pain under the sternum brought on by slight exertion. Examination showed normal findings except for palpable and tortuous brachial arteries, cardiac murmur over precordia, systolic in time. Blood pressure was 210/120. He complained of some shortness of breath after climbing the stairs to the office and of substernal pain. I made a diagnosis of angina pectoris with hypertension. I put him on a milk diet for four days and he returned with no improvement. I then ordered a milk free diet and he returned after four days much improved but still having angina. Blood pressure registered 130/70. I suspected that tobacco might be a factor in the angina and stopped the use of all tobacco. He reported in a week feeling fine, having had no attacks of angina after four days' freedom from tobacco. He was now able to go about his farm duties for ten days when he concluded that the tobacco had nothing to do with his angina and smoked about one half of a cigar and was seized with a severe paroxysm and was compelled to quit work for twenty-four hours. Again, after about seven days of freedom from pain, he tried smoking a pipe and found that he again brought on the angina pectoris; so he was convinced that the tobacco caused his trouble. He has been off both milk and tobacco for eight months and is enjoying excellent health; his blood pressure is still below 140/76.

Case 4. Woman, married, aged 65 years, with negative past and personal history except for present illnesses; consulted me for subacute arthritis involving the right knee and all joints of the fingers of both hands. She is slightly obese with superficial varicose veins below the knees. Teeth were out and tonsils showed pus on pressure. Blood pressure was 190/100. This patient stated that she had had a hypertension of at least ten years' duration. The pressure was usually 210. A relative, a physician, had repeatedly tested the pressure. On a milk diet for four days the blood pressure dropped to 150/80 and she said she felt better than she had for years, although the arthritis was not improved.

I added a new food every four days and the pressure remained normal until pork was added when it went to 190/90. Removal of the pork from the diet caused the pressure to drop to 140/80 without the use of drugs. A test meal of pork given on an empty stomach caused a rise in pressure to 180/110.

Again on elimination of pork the pressure dropped to 135/78. She was off of pork for eight weeks and returned with a pressure of 160 and I found she had been using ham lard drippings for frying eggs and cooking. She is now using leaf lard or synthetic lard for cooking and her pressure is now under 140/80. I feel that the protein in the ham fat probably caused a slight increase in blood pressure in this case.

Case 5. A housewife, aged 72 years, whom I had treated for hypertension for twelve years had pressure which caused dizziness and staggering when it reached 190/100 when she would call me. These attacks occurred at all seasons of the year. A recent examination in May, 1936, showed a pressure of 190/110. There was extreme dizziness. She stated that the attack followed a mess of "greens" consisting of soursdock, dandelions, pigweed and mustard. Elimination diet proved greens to be the offending food. I now learned that she canned greens for family use so she had them throughout the year. Incidentally, the Meniere's syndrome cleared up on salicylates. The latter probably was not a complication caused by high blood pressure.

I have one patient sensitive to pork who cannot eat eggs fried in lard without a rise in blood pressure. Another had a stroke on eating wild mallards raised on the farm for table use. She was also sensitive to chocolate and would have a rise of 40 mm. Hg. on eating it in cake or as a beverage.

Another patient was sensitive to wheat and ingestion of any wheat caused a marked swelling of the tongue with an increase of 60 mm. Hg. in blood pressure.

I have worked out the cause of the hypertension in about fifteen patients of which the above case reports are fair examples.

In all cases I use either the elimination diet or skin tests of the foods for hypersensitivity. In the skin tests I use scratch, intradermal and patch tests in the order named.

In giving a patient instructions for an elimination diet care must be taken to give detailed instructions of the foods allowed from day to day and each day's diet must be checked to see that there are no foods taken that are not allowed. For instance, in eliminating milk or

wheat it will be necessary to tell the patients just which foods contain wheat or milk.

For the benefit of the practitioners who have not access to a well equipped allergy laboratory I will present herewith a crude method of testing for allergy. I fully realize that the method is open to criticism on the ground of lack of scientific technic, etc.; nevertheless, it works in many cases and the method is so simple and inexpensive that it can be performed by any physician.

For the tests I use a couple of nests of muffin tins (maybe it would be more accurate to call them muffin "aluminums"). These nests have eight separate wells, each well holding about 45 cc. It is important for the tests to use a uniform amount of both water and the food to be tested.

I present the housewife with the tins and instruct her to fill each well one half full of boiling water and put one struck teaspoon of the food to be tested in each well, i. e., a separate food for each test. In case of meats I use a section of the fresh lean portion, 1 inch square, finely diced.

The filled wells are placed on the stove and carefully watched and allowed to come to the bubbling point (for at least thirty minutes) but not boiling, as that causes a popover into the surrounding wells from each well. The latter point is very important. Tell the cook to use a separate spoon or knife for each food and said knife or spoon must be free from any food contamination. Tell her that; you must leave nothing to chance. No salt or seasoning is added. Tell her that, too.

In testing I make a series of scratches on the back or forearm with two needles in a cork, set about 3 mm. apart. Make one or two scratches extra for controls. Next, convey a droplet of the juice from a well to a scratch with a fresh toothpick. Use a separate pick for each food. Gently rub the juice into the scratch and instruct the patient to inform you of any itching or burning in any scratch. These solutions being very dilute, any reaction varying from the blank should be considered positive.

For fruits eaten raw, like oranges, lemons, bananas, etc., I convey the juice directly from the fruit to the scratch. This will work with egg yolk and egg white and milk. These tests are like the roentgen ray, a negative may mean nothing while a positive is diagnostic. In case of a doubtful food or a doubtful reaction I do an interdermal test. Occasionally a patch test will help.

In the pollen tests I either have the patient bring some of the suspected pollen to the office in an envelope or take the patient to the fence corner and shake the pollen into the scratch.

SOME EYE CONDITIONS OF INTEREST TO THE GENERAL PRACTITIONER

CLYDE P. DYER, M.D.

ST. LOUIS

The general practitioner in the smaller towns and country district has to know and does more about eye conditions than the city general practitioner. He is usually the one who first sees the patient with an eye condition so it is incumbent upon him to say whether he shall treat the patient or refer him to some eye specialist in a distant city.

The severe injury that is easily recognizable as a hospital case is not the type of case which I wish to consider. I wish to talk about the simpler case that is within the province of treatment by the general practitioner, or the type of case that he should recognize and recommend for treatment or operation that is not an emergency.

A father may bring a child to the general practitioner for a cold or some simple ailment and the child has crossed eyes. Should the physician advise the father that the best results are obtained and often without operation if the child is taken to an eye physician as soon as possible? Does the general practitioner know why?

This advance position of the family physician is most important and the physician who merely tells his patients that he is not an eye specialist and cannot do anything for him except refer him is not doing all he should. He should inform himself enough to tell the patient the reason he is being referred.

For convenience I shall classify the patients that I wish to talk about into five groups; viz.: (1) those with some noninflammatory eye condition or accidental injury of minor nature; (2) acute inflammation; (3) acid or alkali burns; (4) crossed eyes, (5) last but most common, eye strain.

1. The noninflammatory eye conditions that may be encountered are foreign bodies in the eye, growths upon the eyeball, such as pterygium, chalazion, warts and tumors on the lids or face near the eyes.

Anesthetize the eye thoroughly and remove any foreign body, being careful not to injure the cornea; use plenty of antiseptic and place a dressing upon the eye. The most important part of the procedure is the dressing and the antiseptic ointment placed on the eye.

The McReynolds' operation for pterygium should be as familiar to the general practitioner

doing a country practice as it is to the eye specialist; but unless a physician has every confidence in himself he should not do any operation upon the eyeball itself. He should know the operation and if he refers a case to a specialist he can better judge the work.

Chalazion, or meibomian cyst of the eyelid is common. The best procedure is to infiltrate the lid with a 1 per cent solution of novocain or other acceptable anesthetic and, after a five minute wait, incise the chalazion vertically; then curette thoroughly with an eye curette, then apply tincture of iodine being careful not to get any of it on the eyeball or the lid.

Warts and keratoses about the eyes or eyelids should be removed by a clean surgical operation as they are possible cancers in later years of life and the only safe way to avoid cancer is to remove all possible sources of it.

Accidental cuts of the eyelids require skill in approximating the edges as nearly even as possible. This is best accomplished by placing the first suture in the exact margin of each side of the cut at the junction of the skin with the conjunctiva and the other sutures will fall into place easily.

If there is penetration of the eyeball the best and safest procedure is to place an antiseptic and a dressing on the eye and refer to a specialist.

2. Acute inflammations are usually infections and may be caused by the staphylococcus, streptococcus, pneumococcus, gonococcus, Morax-Axenfeld bacillus, etc. A laboratory examination should be made in all acute eye inflammations. Cleansing solutions such as boric acid, 4 per cent, or normal saline are used. Epinephrine solutions 1:10,000 help to constrict the vessels so that the antiseptic solution, such as metaphen 1:5000, merthiolate 1:1000, are more efficient.

Ice compresses before the drops are used always help the action of the drugs and allay the inflammation. However, if there is any corneal involvement, hot applications for ten minute periods every three hours are best. Do not use heat more than fifteen minutes at any time. Zinc sulphate 1 per cent is used in the Morax-Axenfeld infection. Optochin (ethylhydro-cupreine) is quite efficient for the pneumococcus.

3. Acid and alkali burns are often seen by the general practitioner and the first thought is of some neutralizing agent. It is the consensus of opinion of eye physicians that plain tap water is the best and easiest method of diluting the agent and lessening the injury resulting from the burn.

The coagulum that forms in the tissues retards the penetration of the agents and if we use a neutralizing agent such as an acid for

alkali burns or an alkali for acid burns we help dissolve this fibrin and there is the possible burning effect of the reagent added to the burn of the agent itself.

After-treatment is important but I shall not go into detail as each case must be treated according to its severity.

Blindness following the administration of quinine is often seen by the country physician. The first thing to do is stop the intake of quinine. These cases will clear up considerably of their own accord but should be seen by an eye physician.

4. Strabismus, or crossed eyes, is one important eye condition that I must mention and urge the general practitioner to send to a qualified eye physician as soon as he sees a case. The age may be only a year, but do not delay and do not think the child may outgrow it. It would be just as sensible for the general practitioner to tightly bandage one arm to the side and start the child through life with one useful arm and expect him to develop the bound arm into a proper functioning arm as to expect him to develop a proper functioning eye that is crossed. He must have assistance in the development of the crossed eye and that is why we want to see them at the earliest possible age. The development of the retina, and that is the sight of the eye, depends entirely upon the early care of these cases. The good eye is bandaged for hours each day and the child is forced to use the weaker eye and develop it. When the two eyes are open and one crosses, the image upon one retina (that of the crossed eye) is entirely submerged and it is the same as closing that eye and looking with the one eye only.

If the crossed eye is not developed, we have a resultant blindness from disuse, i. e., amblyopia ex anopsia. Glasses at this early age are most important as they enable the child to look at objects and see them without eye strain.

It would be well to explain that the nerves to the muscles of the eye are the third, fourth and sixth cranial. The third cranial, or oculomotor nerve, has three divisions one of which goes to the internal rectus muscle for convergence; the second branch goes to the iris to determine the size of the pupil and the third branch goes to the ciliary muscle for producing accommodation. To make a simple comparison, suppose we have three different bells connected by wires with one button. When the contact is made, those bells all ring evenly for it is impossible to direct the electrical energy upon making the contact so that one bell would ring loud, another medium and the third soft. Exactly in this manner these three branches of the third, or oculomotor, respond to a brain impulse

when a person tries to see an object. The impulse to the ciliary muscle to produce accommodation in these cases is such that it causes excessive convergence. So as soon as we place glasses before the child's eyes he does not require so much accommodation and we immediately have much less convergence so the crossing becomes less and may often be completely cured if the child was seen at the beginning of the condition. We do not advise operation until 6 or 8 years of age, or until after the benefits of several years under the glasses have been obtained. However, it is necessary to operate on any child before the age of 12 to 15 years after which fusion of the image, as seen with one eye as with that of the other eye, is seldom obtainable.

5. The physician should not refer any of his patients to an optician or optometrist if he places his patient's welfare uppermost in his mind. Recent statistics show that more than 58 per cent of all patients who thought they merely needed glasses were found to have other more serious eye conditions requiring an eye physician's services. Again, the eye physician is a definite part of medical practice and the up-building of better medical practice for the physician and better health for your patient should cause each physician to send patients to physicians and not to opticians for palliative glasses any more than they would send their patient to the drug store for palliative patent medicines.

In conclusion, I wish to thank the officers and members of the Southeast Missouri Medical Association for inviting me to appear upon this program. I hope that I have impressed the necessity of the general practitioner showing an added interest in the eyes of his patients, and if I have helped in any manner to stimulate this interest I am fully repaid.

314 Humboldt Building.

CULTURE OF HUMAN MARROW

Edwin E. Osgood and Inez E. Brownlee, Portland, Ore. (*Journal A. M. A.*, May 22, 1937), outline a technic of marrow culture which has proved simple and entirely satisfactory for many types of investigation. The method described, while not producing the maximal rate of multiplication or the maximal rate of maturation, does permit the two to occur simultaneously much as in normal marrow. Since it was necessary to determine the proper oxygen and carbon dioxide tension, the pH , the volume of fluid per unit number of nucleated cells, the thickness of the layer of fluid over these cells, the optimal frequency of changing the mediums and the gas mixture, the optimal temperature, the speed of centrifugation, and many other factors as well as the composition of the medium, more than 400 experiments have been performed in the development and investigation of the technic.

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JUNE, 1937

EDITORIALS

BERNARD W. HAYS, M.D.

PRESIDENT-ELECT, MISSOURI STATE MEDICAL ASSOCIATION, 1937-1938

Dr. Bernard W. Hays, Jackson, was selected as President-Elect of the Missouri State Medical Association by the House of Delegates at the Cape Girardeau Session, May 10, 11 and 12. He will serve as President-Elect during this year and will be installed as President at the Jefferson City Session in 1938 and will serve as President during that year.



BERNARD W. HAYS, M.D.

Dr. Hays was born in Cape Girardeau County on May 14, 1867. He obtained his academic education in the district schools of Cape Girardeau County, the Jackson Academy, the Normal College at Cape Girardeau, Central Normal College at Danville, Indiana, and the University of Missouri.

He studied medicine at the University of Louisville School of Medicine and was graduated in 1894. He practiced for five years in Cape Girardeau County, then took postgraduate work in the New York University and Bellevue Hospital Medical College, New York. He returned to Cape Girardeau County and practiced at Tilsit and Gordonville and in 1904 located in Jackson where he has practiced for thirty-two years. He has practiced in Cape Girardeau County for forty-three years.

Dr. Hays became identified with organized medicine as soon as he began practice. On November 14, 1894, he became a member of the Southeast Missouri Medical Association. He became a member of the Missouri State Medical Association when the Cape Girardeau County Medical Society was issued a charter on January 23, 1905. He was delegate to the Annual Sessions in 1929, 1930, 1934, 1935 and 1936. He was Vice President of the Association in 1932. He was elected Councilor of the Twenty-Second District in 1935 and acted in that capacity until the reorganization of the Councilor Districts at the Cape Girardeau Session included that District in the Tenth District. He was Chairman of the General Committee on Arrangements for the Cape Girardeau Session. Dr. Hays has served the Cape Girardeau County Medical Society as president, treasurer, censor and delegate. He is a fellow of the American Medical Association and a member of the Southern Medical Association.

Dr. Hays early manifested his interest in and loyalty to organized medicine and has always fulfilled his responsibilities to his profession in a way which makes his colleagues happy in his selection as President of the Association for 1938.

AMERICAN FOUNDATION STUDIES IN GOVERNMENT

There are few phases of life or civilization that are not going through some change today. When civilization is changing it makes necessary some change in every participant in that civilization. Whether these changes are or shall be for better or worse depends largely on how carefully the particular field has been studied and how true is the foundation on which the changes are based. That medical care is a problem today is not debated. It is a problem both to the physi-

cian and to the patient. There already have been changes in the field of medical care and there will without doubt be more.

The American Foundation Studies in Government which was established in 1924 by the late Edward Bok has recently completed a study on medical care. This study does not attempt to give conclusions but rather to review faithfully the problems as they have been placed before the Foundation. The data collected by the Foundation seems worthy of careful study by the profession and while general in scope there are sufficient definite indications to form an excellent basis of study. The *Journal of the American Medical Association*, issue of April 10, gives an abstract of the report and in its leading editorial of that issue terms the report "thought provoking."

While comparatively few answers to questionnaires were used as a basis of the study, in comparison with the number of physicians in the United States, the distribution is essentially accurate and the physicians carefully enough chosen to give a cross view of the opinions of the profession. Of those answering 36 per cent were in general practice, 38 per cent were surgeons and 26 were in special fields.

One of the forceful indications in the report is that the problem of medical care must be solved by the medical profession. It is obvious to the practitioner that the plans offered by other agents are inadequate, both for the patient and for the physician. Economic conditions have influenced the medical profession as well as all others and has at the same time instilled into that profession more business consciousness than it probably has ever before possessed. The profession has necessarily become better able to cope with problems allied with but not scientifically connected with diagnosis and cure of disease. And conditions today make it imperative that the physician does cope with these problems.

Among the questions discussed in the report are: What is available and adequate medical care? Who is in position to best attack the problem? How big a part should the Government play? While social service is necessary, is it handling its phase of the work efficiently? Is the problem principally an economic one? Can the medical school play a big part in solution? Has the importance of "doctor patient relation" changed? Is public health and preventive medicine sufficiently stressed and on whom should this responsibility rest? Are standards of specialization sufficiently strict or too strict? Where does the hospital stand in the problem? Is the answer in state or health insurance or in contract practice?

The Foundation report gives an excellent

statement of facts and opinions of physicians which well may be a basis or starting point for a great deal of study and constructive work by organized medicine.

Further study along these lines has already been started in Missouri. A survey of medical care in Missouri in cooperation with the State Board of Health was authorized at the Cape Girardeau Session. The Committee on Medical Economics and the Committee on Maternal Welfare in their reports at the Cape Girardeau Session recommended that such a survey of Missouri be made. In the "President's Message and Recommendations" by Dr. Ross A. Woolsey, St. Louis, he urged action on these recommendations saying, "In particular we want to know if rural sections in Missouri are suffering from a lack of available medical service. If so, what are they and what are the conditions responsible for such deficiency? Such a survey would make known definite facts which would guide us in planning future programs for medical care and hospitalization as well as educational publicity, both professional and lay." The House of Delegates acted on these recommendations by authorizing the survey.

THE JOURNAL will give discussions of the various phases of the report which, while totally unbiased and without conclusions, is a challenge to organized medicine to study further and work out its own solution of a problem that regardless of what may come is the problem of the profession and not the layman.

THE CAPE GIRARDEAU SESSION

The 80th Annual Session of the Missouri State Medical Association convened in Cape Girardeau, May 10, 11 and 12 with 461 in attendance including premedical students, nurses from local hospitals and visiting physicians from Illinois.

Dr. B. W. Hays, Jackson, was elected President-Elect. Dr. Ross A. Woolsey, St. Louis, presided at the Cape Girardeau Session and Dr. Dudley S. Conley, Columbia, was installed at the Wednesday session of the House of Delegates and will preside at the 1938 Annual Meeting which will be held in Jefferson City.

Other officers elected were: Vice Presidents, Drs. W. A. Bloom, Fayette, E. L. Johnston, Concordia, and S. E. Mitchell, Malden; Secretary-Editor, Dr. E. J. Goodwin, St. Louis; Assistant Secretary and Business Manager, E. H. Bartelsmeyer, St. Louis; Treasurer, Dr. John R. Caulk, St. Louis.

After a motion was adopted to reorganize the state into ten Councilor Districts the following Councilors were elected: First District, Dr. A. S. Bristow, Princeton; Second District,

Dr. H. B. Goodrich, Hannibal; Third District, Dr. Curtis H. Lohr, St. Louis; Fourth District, Dr. R. B. Denny, Creve Coeur; Fifth District, Dr. M. Pinson Neal, Columbia; Sixth District, Dr. A. J. Campbell, Sedalia; Seventh District, Dr. E. P. Heller, Kansas City; Eighth District, Dr. H. L. Kerr, Crane; Ninth District, Dr. W. H. Breuer, St. James, and Tenth District, Dr. A. H. Marshall, Charleston. A listing of county societies in each Councilor District and a map showing the new Districts appears on page 210.

Drs. Carl F. Vohs, St. Louis, and James R. McVay, Kansas City, were reelected Delegates to the American Medical Association and Drs. C. E. Burford, St. Louis, and M. Pinson Neal, Columbia, were reelected alternates.

Action was taken by the House opposing amendments 3 and 4 of the Cancer Hospital Bill and transmitted to Governor Lloyd C. Stark. These amendments were later withdrawn.

Amendments to the Constitution and By-Laws were offered prohibiting Councilors from voting in the House of Delegates or serving for more than three terms and providing for a Speaker and a Vice Speaker of the House of Delegates. These were tabled for action in 1938.

A committee was appointed to make a survey and render a report on the question "Can and by what means may the University of Missouri School of Medicine further its ideals of better training and supplying physicians to the State of Missouri?" The committee appointed is Drs. E. Lee Miller, Kansas City; Ralph R. Wilson, Kansas City, and Dudley S. Conley, Columbia.

An amendment to the By-Laws was adopted making the Committee on Constitution and By-Laws a standing committee.

An amendment to the By-Laws was adopted providing for the Council to be the executive body of the House of Delegates between sessions. The Executive Committee of the Council was abolished.

A resolution was adopted requesting the American Medical Association to establish a Council on Medical Ethics and Economics and the Missouri Delegates were instructed to present the resolution to the House of Delegates of the American Medical Association.

A Committee on the Control of Syphilis was authorized.

The plan for medical care of Resettlement Administration clients as submitted by the Committee on Medical Economics was approved but the adoption of the plan was left to the individual county medical societies.

The scientific meetings were well attended during practically all of the sessions and presentations of members and guest speakers were

well received. A large lay audience attended the public meeting on Tuesday evening.

Dr. Norman F. Miller, Ann Arbor, Professor of Obstetrics and Gynecology in the University of Michigan School of Medicine, as guest speaker at the dinner meeting of the Maternal Welfare Committee on Monday evening, stressed the necessity of prenatal care and placed the lack of prenatal care as an outstanding cause of the high maternal mortality rate.

Men interested in eye, ear, nose and throat work held a round table luncheon meeting Tuesday noon. A committee to plan for an annual luncheon was appointed by Dr. Claude R. Bruner, Columbia, who presided, as follows: Drs. J. S. Summers, Jefferson City; J. S. Knight, Kansas City, and H. Rommel Hildreth, St. Louis.

Alumni of Washington University School of Medicine and of the University of Missouri School of Medicine and members of Phi Beta Pi fraternity held luncheon or dinner meetings during the session.

The Cape Girardeau County Medical Society was host to members at a stag smoker at the Cape Girardeau Country Club on Tuesday evening following the open session.

Secretaries of component societies were guests of the Association at a dinner on Tuesday evening.

Scientific exhibits were unusually instructive and showed careful preparation and attracted much attention. Commercial exhibits were commended by the physicians for bringing new products and services of the companies to their attention.

ATLANTIC CITY SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association will meet this year in Atlantic City where two years ago it had the largest attendance any medical meeting has ever had. The 88th Annual Session will convene from June 7 to 11 with practically all sessions and exhibits in Convention Hall. The House of Delegates will meet in the Ambassador Hotel.

The House of Delegates will convene on Monday, June 7. General clinical sessions will be held on Monday and Tuesday and the scientific Assembly will open with a general meeting on Tuesday evening. The fifteen sections will meet Wednesday, Thursday and Friday.

Officers of sections who are from Missouri are: Dr. Ralph H. Major, Kansas City, Vice Chairman, Section on Practice of Medicine; Dr. Buford G. Hamilton, Kansas City, Vice Chairman, Section on Obstetrics, Gynecology and Abdominal Surgery; Dr. John Green, St.

Louis, member of Executive Committee of the Section on Ophthalmology; Dr. Charles C. Dennie, Kansas City, Vice Chairman, Section on Dermatology and Syphilology; Dr. J. F. Bredeck, St. Louis, Vice Chairman, Section on Preventive and Industrial Medicine and Public Health; Dr. Nelse F. Ockerblad, Kansas City, Vice Chairman, Section on Urology; Dr. B. Landis Elliott, Kansas City, Vice Chairman, Section on Nervous and Mental Diseases.

Missouri members presenting papers are: Drs. Roy L. Kile and M. F. Engman, Sr., St. Louis, "Relationship of *Pityrosporum Ovale* to Seborrheic Dermatitis, Further Investigations." Dr. Richard L. Sutton, Jr., Kansas City, "Epidermal Carcinoma as a Biologic Phenomenon; The Mutation Theory." Dr. George H. Thiele, Kansas City, "Coccygodynia and Pain in the Superior Gluteal Region and Down the Back of the Leg; Observations on the Causation of Such Pain by Tonic Spasm of the Levator Ani, Coccygeus and Piriformis Muscles, and Its Relief by Massage of These Muscles." Dr. E. H. Skinner, Kansas City, "Mucosal Pattern Technic and Kymographic Records of the Esophagus and Stomach." Dr. John M. McCaughan, St. Louis, "Pancreatic Fistula."

Discussers of papers will be Drs. B. Landis Elliott, Charles C. Dennie, Nelse F. Ockerblad, Frank D. Dickson and Fernando I. Wilson, Kansas City; John Green, William H. Luedde, Lawrence T. Post, A. F. Hartmann, Richard S. Weiss, J. Albert Key, Wendell G. Scott and William T. Coughlin, St. Louis.

Special features of this session include a special session on diagnosis, treatment and prevention of syphilis and the first exhibition of the talking motion picture clinic on syphilis prepared jointly by the American Medical Association and the United States Public Health Service.

A dinner and entertainment for delegates and officers of the American Medical Association will be held at the Ambassador Hotel on Monday evening and a luncheon will be held Tuesday noon. The President will be honored with a reception and ball on Thursday evening. Many alumni and group dinners have been scheduled.

Scientific exhibits will occupy the north end of the main floor and the stage of Convention Hall and the technical exposition will occupy the remainder of the main floor.

Only fellows of the American Medical Association may attend and take part in the Annual Session. Any members in good standing of a component association may become a fellow upon application and payment of fellowship dues. Application blanks may be obtained from the office of the Missouri State Medical Association.

BILLS IN LEGISLATURE

The Committee Substitute for Senate Bill No. 3, providing for the establishment of a State Cancer Hospital in or near Columbia for the treatment of cancer and allied diseases, has passed the Senate and the House and is now before the Governor for his signature.

Senate Bill No. 76, providing for liens in favor of public and charity-supported private hospitals, clinics and other institutions for the care of the sick, who furnish care, treatment and maintenance to persons injured by the negligence or wrongful acts of others, is in the Senate Judiciary Committee.

Senate Bill No. 90, clarifying our statutes with reference to the care of crippled children so as to permit Missouri to participate fully in the allocation of Federal funds, has passed both the Senate and the House and has been signed by the Governor.

Senate Bill No. 192, amending the Missouri laws with reference to narcotic drugs so as to be in harmony with the Federal Narcotic Act, called the Uniform Narcotic Drug Act, is now on the calendar for perfection.

House Bill No. 324, relating to the sterilization of certain inmates of state hospitals and the Colony for the Feeble-minded and Epileptic, was defeated by the House on the third reading on April 15.

House Bill No. 265, raising the educational qualifications of pharmacists, was passed by the House and is now in the Senate Committee on Public Health.

House Bill No. 387 makes it unlawful to sell eyeglasses except on prescription of duly licensed physicians or duly licensed optometrists and relates to advertising free examinations of eyes and sterilization of eyeglasses. The bill was passed by the House and is now in the Senate Committee on Public Health.

Senate Bill No. 135, amending the present medical practice act by requiring applicants for medical licensure to be citizens of the United States and be able to read and write the English language, also that applicants shall have completed a two year college or university course in the subjects of physics, chemistry and zoology, is still in the Committee on Public Health of the Senate.

NEWS NOTES

Dr. John Green, St. Louis, was a guest of the Indiana Academy of Ophthalmology and Otolaryngology at Indianapolis on April 14 and delivered an address on "Responsibility for Blindness in Chronic Glaucoma."

Dr. Max J. Bierman, St. Louis, will be a guest of the Belleville Branch of the St. Clair County (Illinois) Medical Society at Belleville on June 3 and speak on "Compulsory Health Insurance Versus the American System of Medicine."

Dr. Ralph A. Kinsella, St. Louis, was a guest at the annual spring clinic of the Providence Hospital Intern Alumni Association, Detroit, Michigan, on May 12, and presented an address on "Streptococcal Infection, Experiences With Prontosil."

The Root-Mandabach Advertising Agency, Chicago, who handle some of the advertising appearing in *THE JOURNAL*, moved their offices to 646 N. Michigan Avenue, on May 1 in order to have more space to accommodate their increased business.

Dr. E. H. Hashinger and Dr. Richard L. Sutton, Jr., Kansas City, were guests of the Des Moines Valley Medical Society at Ottumwa, Iowa, on April 29. Dr. Hashinger spoke on "Recent Advances in Endocrine Therapy," and Dr. Sutton's subject was "The Mutation Theory of the Origin of Cancer."

Dr. Vilray P. Blair and Dr. French K. Hansel, St. Louis, were guest speakers at the annual meeting of the Illinois State Medical Society at Peoria, May 18 to 20. Dr. Blair spoke on "Early Treatment of Injuries of the Face and Jaws" and Dr. Hansel discussed "Allergy of the Upper Respiratory Tract and Its Relation to Other Manifestations."

The Trudeau Club of St. Louis met at the Robert Koch Hospital, Koch, on May 6. The following program was presented: Dr. A. S. Steiner, St. Louis, "Amyloid Diseases in Tuberculosis"; Dr. J. T. Maher, St. Louis, "The Use of Insulin in Malnutrition"; Dr. D. H. Trumpe, St. Louis, "Collapse Therapy in the Negro," and Dr. Paul Murphy, St. Louis, "A Comparison of the First and Last Thousand Cases Discharged."

An American Board of Surgery to correspond with boards in other specialties has been established by the American Surgical Association, the Surgical Section of the American Medical Association, the American College of Surgeons, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society. Dr. Evarts A. Graham, St. Louis, is chairman of the board. Two groups of candi-

dates will be recognized by the board, the Founders Group or those who have already demonstrated their fitness as specialists in surgery, and another group who have met the general requirements and wish to pass the qualifying examination. Requests for information should be directed to the secretary, Dr. J. Stewart Rodman, 225 S. Fifteenth Street, Philadelphia.

The Refresher Courses in Obstetrics and Pediatrics being given at present will close June 10. The remaining dates of this series are as follow:

OBSTETRICS

Macon, Randolph, Monroe and Chariton counties on Monday, June 7, at the Security Benefit Hall, Moberly.

Adair, Schuyler, Knox and Sullivan counties on Tuesdays, June 1 and 8, at Kirk Auditorium, Kirksville.

Clark, Scott and Lewis counties on Wednesdays, June 2 and 9, at the Canton Community Hospital, Canton.

Marion, Ralls and Shelby counties on Thursdays, June 3 and 10, at the High School Auditorium, Shelbyville.

PEDIATRICS

Barry, Christian, Lawrence, Stone and Taney counties on Monday, June 7, at the City Hall Auditorium, Monett.

Barton, Jasper, Newton and McDonald counties on Tuesdays, June 1 and 8, at the Connor Hotel, Joplin.

Greene, Webster, Dallas, Polk and Hickory counties on Wednesdays, June 2 and 9, at the Public Library, Springfield.

Douglas, Howell, Oregon, Texas and Wright counties on Thursdays, June 3 and 10, in the Kiwanis Hall, Mountain Grove.

The following members accepted invitations of the Postgraduate Committee and the McAlester Foundation to deliver addresses at recent meetings of component societies and lay meetings:

Drs. E. Lee Miller, Kansas City, and M. Pinson Neal, Columbia, were guests of the Pettis County Medical Society at Sedalia on April 19 and delivered addresses on "Appendicitis" to two high school groups in the afternoon and addressed Society members in the evening.

The St. Francois-Iron-Washington-Madison-Reynolds Counties Medical Society had as its guests at Farmington on April 23 Drs. Wm. J. Gallagher and Alphonse McMahon, St. Louis. Addresses on "Appendicitis" were presented before high school students in the afternoon and at a scientific meeting in the evening.

Drs. M. Pinson Neal, Columbia, and E. Lee Miller, Kansas City, delivered addresses before high school students in Liberty, Richmond and Excelsior Springs on April 29 on "Appendicitis." In the evening they addressed physicians in Clay and adjoining counties at Excelsior Springs.

On April 30 the Greene County Medical Society had as guests at Springfield Drs. Drew Luten and W. L. Dean, St. Louis. Dr. Luten spoke on "The Management of Congestive Heart Failure" and Dr. Dean talked on "The Treatment of Acute Purulent Sinus in Infants and Young Children."

Dr. C. A. W. Zimmermann, Cape Girardeau, gave an address on "Appendicitis" before a lay group at the Delta Consolidated School, Delta, on May 2.

Dr. O. F. Bradford, Columbia, spoke on the Hospital Day program at the Southeast Missouri Hospital, Cape Girardeau, on May 12.

During the Annual Session at Cape Girardeau the following members gave addresses on "Appendicitis": Dr. M. Pinson Neal, Columbia, at the Cape Girardeau High School; Dr. L. P. Gay, St. Louis, to the Rotary Club; Dr. Alphonse McMahon, St. Louis, to the Lions Club; Dr. E. Lee Miller, Kansas City, at St. Vincent's College; Dr. C. H. Neilson, St. Louis, at St. Mary's High School, and Dr. H. A. Lowe, Springfield, at the Jackson High School, Jackson.

Four men received prison sentences for using the mails to defraud in traffic in faked medical and chiropractic diplomas and licenses in the court of United States District Judge Charles B. Davis, St. Louis, on May 21. Those convicted were George M. Lindsay, Kansas City; George N. Lindsay, Jr.; "Prince" Ali Yehi Debeh, former Missouri farm boy who posed as an Egyptian prince and an arthritis specialist, and D. R. Alexander, former head of the defunct Kansas City College of Medicine and Surgery.

The plan of operation as outlined by the Government was to issue predated diplomas from defunct Kansas City medical schools and to use the diplomas to obtain Arkansas licenses through alleged cooperation with a former secretary of the Arkansas Eclectic Board of Examiners. With Arkansas medical licenses the purchasers could in most instances obtain reciprocal licenses in states of their residence.

The Kansas City College of Medicine and Surgery was deprived of its charter by the Missouri Supreme Court for selling "honorary" diplomas at the time of the diploma mill expose in 1926.

Evidence was introduced at the trial showing that fifteen persons from Missouri and five other states had paid a total of \$15,450 for spurious medical credentials.

Testimony of one recipient of a faked chiropractic diploma and license was that he, a former bank clerk, had delivered "a dozen or more babies" and had performed minor surgical operations. After receiving his license and diploma, the witness stated, he was an intern in a St. Louis hospital for several months.

Testimony was given against Debeh that he treated patients in Pennsylvania for arthritis even after he was arrested in St. Louis in 1934 at the beginning of the Federal investigation.

Two other defendants pleaded guilty and testified for the Government. They are Mrs. Myrtle Long, former secretary of the Iowa Chiropractic Board of Examiners, who testified the elder Lindsay paid \$250 to her for a chiropractic license for his stepson; and Arthur E. Krebs, Chicago, who quoted Lindsay as saying he could obtain licenses in nearly every state in the Union. Their sentences were deferred. Another defendant has appealed from a ruling of the court ordering him brought to St. Louis for trial.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Eli Lilly & Company

Merthiolate Suppositories 1:1000

Medical Arts Laboratory

Rabies Vaccine (Killed Virus) seven 2 cc. vials package

National Aniline & Chemical Co., Inc.

Scarlet Red Sulphonate—"National"

Schering Corporation

Ampoule Solution Neo-Iopax, 10 cc.

Sterisol Ampoule Corporation

Sterisol Ampoules Dextrose 2½% in Physiological Solution of Sodium Chloride

Sterisol Ampoules Dextrose 10% in Physiological Solution of Sodium Chloride

Sterisol Ampoules Dextrose 20% in Physiological Solution of Sodium Chloride

Sterisol Ampoules Dextrose 25% in Physiological Solution of Sodium Chloride

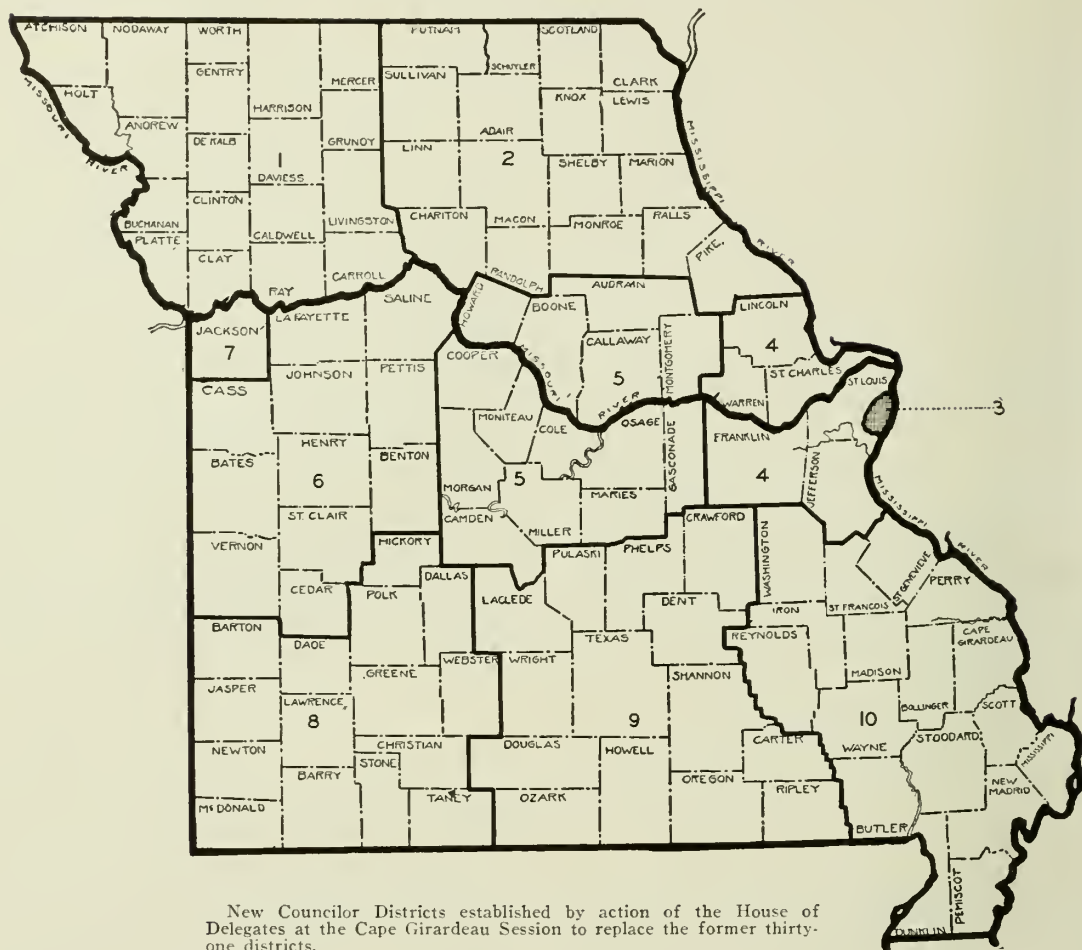
Sterisol Ampoules Dextrose 5% in Distilled Water

Sterisol Ampoules Dextrose 10% in Distilled Water

Sterisol Ampoules Dextrose 20% in Distilled Water

Sterisol Ampoules Dextrose 25% in Distilled Water

COUNCILOR DISTRICTS



New Councilor Districts established by action of the House of Delegates at the Cape Girardeau Session to replace the former thirty-one districts.

First District: Councilor, Dr. A. S. Bristow, Princeton. County Societies: Atchison, Buchanan, Caldwell-Livingston, Carroll, Clay, Clinton, DeKalb, Gentry, Grundy-Daviess, Harrison, Holt, Mercer, Nodaway, Platte and Ray. Andrew and Worth counties unorganized.

Second District: Councilor, Dr. H. B. Goodrich, Hannibal. County Societies: Adair-Schuyler-Knox-Sullivan, Chariton, Clark, Lewis, Linn, Macon, Marion-Ralls, Pike, Putnam, Randolph-Monroe, Scotland and Shelby.

Third District: Councilor, Dr. Curtis H. Lohr, St. Louis. County Society: St. Louis (City).

Fourth District: Councilor, Dr. R. B. Denny, Creve Coeur. County Societies: Franklin, Jefferson, Lincoln, St. Charles and St. Louis (County). Warren County unorganized.

Fifth District: Councilor, Dr. M. Pinson Neal, Columbia. County Societies: Audrain, Boone, Callaway, Camden, Cole, Cooper, Gasconade-Maries-Osage, Howard, Miller, Moniteau, Montgomery and Morgan.

Sixth District: Councilor, Dr. A. J. Campbell, Sedalia. County Societies: Bates, Benton, Cass, Henry, Johnson, Lafayette, Pettis, Saline and Vernon-Cedar. St. Clair County unorganized.

Seventh District: Councilor, Dr. E. P. Heller, Kansas City. County Society: Jackson.

Eighth District: Councilor, Dr. H. L. Kerr, Crane. County Societies: Barry, Barton, Christian, Dallas-Hickory-Polk, Greene, Jasper, Lawrence-Stone, Newton, Taney and Webster. Dade and McDonald counties unorganized.

Ninth District: Councilor, Dr. W. H. Breuer, St. James. County Societies: Carter-Shannon, Dent, Howell-Oregon-Texas-Wright-Douglas (South Central), Laclede, Phelps-Crawford and Pulaski. Ozark and Ripley counties unorganized.

Tenth District: Councilor, Dr. A. H. Marshall, Charleston. County Societies: Butler, Cape Girardeau, Dunklin, Mississippi, Pemiscot, Perry, Scott, St. Francois-Iron-Madison-Washington-Reynolds, Ste. Genevieve, Stoddard and Wayne. Bollinger and New Madrid counties unorganized.

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are reprinted here that the members throughout the state may have the opportunity of reading them.

The Treatment of Neurosyphilis

In neurosyphilis the successful therapist is the one who is able to visualize the patient's problem as a whole. The association of other lesions of syphilis, the age of the patient, his economic status, the social problem involved, the type and extent of the neurosyphilis, and the ultimate prognosis are all factors which enter into the choice of method of treatment. It is of the utmost importance that the type of neurosyphilis be correctly classified before treatment is begun.

It is rarely possible to plan an outline of treatment for neurosyphilis for more than six months in advance. More than in any other form of syphilis, treatment must proceed by a system of trial and error. As a general rule, for the relatively inexperienced practitioner, it is wisest to reserve tryparsamide, subdural treatment, or fever therapy, which involve a risk to vital functions or even to life, until trial has demonstrated the inefficacy of the less dangerous arsphenamines and heavy metals.

The six systems of treatment available for neurosyphilis may be summarized as follows:

1. Routine antisyphilitic treatment similar to that used for late syphilis in general, that is, courses of an arsphenamine alternating with courses of a heavy metal, preferably bismuth, together with large doses of potassium iodide by mouth—dosage outlined in a previous number of this series.

This treatment is indicated in early or late asymptomatic neurosyphilis with minor fluid changes; in late neurosyphilis with minor neurologic signs and negative spinal fluid; and in some cases of vascular neurosyphilis, unless there are clinical or laboratory signs of progression of the disease.

2. Mild routine treatment, in which the arsphenamines, usually neoarsphenamine, are given in longer courses of 10-12 injections, and in smaller dosage (0.2-0.45 gm. neoarsphenamine), with relatively more heavy metal.

This treatment is indicated in vascular neurosyphilis when complicated by aortitis; in some tabetics; and as tonic treatment in elderly patients.

3. Intensified routine treatment, in the direction of relatively more arsphenamine and less heavy metal. More arsphenamine means larger doses. A representative course consists of 12-16 injections of arsphenamine (0.4-0.6 gm.) or silver arsphenamine (0.3 gm.). The interval between injections may be 4 or 5 days instead of a week. Treatment is usually continuous, and when the plan is applied to early neurosyphilis, must be so.

This treatment is indicated in early meningeal neurosyphilis; in early or late asymptomatic neurosyphilis with moderate fluid changes; and in most cases of late diffuse meningovascular neurosyphilis.

4. Subdural treatment, rarely suitable as the sole method of attack, but in conjunction with and in addition to routine treatment with arsphenamines and heavy metals. Treatment is given not oftener than every 2 weeks; on the alternate week and arsphenamine is given intravenously.

This treatment is of particular value in primary optic atrophy, tabetic or otherwise, and in tabes for the relief of lightning pains or ataxia. Its dangers are suffi-

ciently great to justify it only when the possible therapeutic gain is adequate.

5. Tryparsamide, which will be considered in a later issue.

6. Fever therapy, which will be described in a later issue.

The Treatment of Neurosyphilis (After Moore) Tryparsamide and Fever Therapy

Visual damage is the only complication of tryparsamide therapy to be feared. The risk of damage to the optic nerve, however, is so great that its use, in inexperienced hands, is not justified unless the possible therapeutic benefit is commensurate with the risk. Its greatest field of usefulness is as post-fever therapy in paresis, in patients with other types of neurosyphilis whose spinal fluid abnormalities are resistant to other forms of treatment, and as a general tonic and alternative in all types of neurosyphilis. In paresis it may be utilized when fever therapy is not available or is contraindicated, and in such cases should be employed from the start of treatment. In other forms of neurosyphilis it is well to withhold tryparsamide until six months' trial of the arsphenamines and heavy metals has demonstrated their inability to effect symptomatic or serologic improvement.

Fever therapy, like tryparsamide therapy, requires experience. It is most nearly the ideal method at present available for the treatment of paresis, and in this condition it should be employed as the first feature of treatment. Recent experience seems to indicate that it is also of value in other forms of neurosyphilis, especially in patients with persistent symptoms or resistant serology. As far as the general practitioner is concerned and except in paresis, other methods of treatment should receive prior consideration.

Paresis or taboparesis is an imperative indication for the use of malaria. The results are so much better than with any other form of treatment that to postpone malaria in favor of a trial of other methods, is to invite progressive deterioration and death.

Extended observation in a number of different centers throughout the world indicates that the results in paresis secured by malaria are superior, in terms of the incidence of complete remissions and their prolonged maintenance, to those from other forms of artificially induced fever. This statement is certainly true as far as relapsing fever, rat-bite fever, hot baths, and foreign protein shock are concerned. With all of these methods, benefit is obtainable, but not as often nor to the sustained extent possible with malaria. Treatment with diathermy and short wave radio is still in the experimental stage.

In other types of late neurosyphilis, malaria may be a method of election or of necessity. In general, since fever therapy of any sort carries with it more of a risk to life than the arsphenamines, tryparsamide, and the heavy metals, it should be reserved until lack of clinical improvement or prolonged serologic resistance indicates its desirability. In the average patient (excepting tabetics), this means at least a year of preliminary treatment, employing first the arsphenamines and heavy metals, then tryparsamide, before malaria is advised. In many patients with late syphilis, however, and especially those with the paretic formula in the cerebrospinal fluid, malaria may be undertaken earlier. One may frequently accomplish as much with malaria plus a subsequent 12-18 months of chemotherapeutic treatment as with three years of chemotherapy alone.

In early neurosyphilis (acute meningeal or asymptomatic), malaria should be withheld until the patient has received at least a year of arsphenamine and heavy metal, for its general treponemicidal effect.

The Post-Treatment Management of Neurosyphilis (After Moore)

When the decision is reached to terminate treatment, either because the patient has achieved apparent clinical arrest and serologic normality, or lacking the latter, because an arbitrary amount of treatment has been given, the responsibility of the physician is by no means ended. Subsequent relapse may occur, demanding certainly, if the relapse is clinical, or probably, if it is serologic, the resumption of treatment. The patient's only real safeguard against progression or relapse is rigid post-treatment observation with frequently repeated physical or serologic re-examinations.

Relapse is much more likely to occur within the first three to five years after cessation of treatment than later. For this period of time, therefore, it is essential to review the situation at intervals of 6-12 months, preferably the shorter period. A complete physical and neurologic examination should be made, and the findings compared in detail with those of the original examination, and blood and spinal fluid serologic tests should be repeated. After the fifth year, the interval between examinations may be lengthened to 12-18 months, the patient being instructed to report at once if new and puzzling symptoms appear. In the case of paretics, the family rather than the patient should be warned for signs of relapse.

Repeated examinations of this sort should be kept up for an indefinite period of time. Vigilance should never be relaxed. The patient should be taught to look upon these periodic examinations as a form of life insurance.

To be of maximum value, the examinations should, as far as possible, be carried out by the same physician, and repeated laboratory tests done in the same laboratory, so as to provide an accurate basis of comparison with previous tests. It is obvious that the reappearance of clinical symptoms or of progression in physical signs is a signal for the resumption of treatment, no matter what the character or duration of previous treatment may have been. The type of treatment to be given for the relapse varies with the nature of the latter, and may be decided in accordance with principles outlined in previous numbers.

The factor of serologic relapse is a more difficult one. What constitutes serologic relapse, significant enough, in the absence of clinical evidence of progression, to justify the resumption of treatment, is a difficult question to answer.

The spinal fluid findings are the factor of importance. Blood serologic fastness or recurrence is of small significance, if any, in this particular situation. If the spinal fluid has been rendered normal by treatment, the reappearance of pleocytosis or of serologic fixation in any amount of fluid certainly justifies further treatment. Slight changes in protein content or in the colloidal curves, which depend on protein, may be disregarded. If, on the other hand, treatment has been stopped while the spinal fluid still retained abnormalities, serologic relapse must involve something more than fluctuations possibly due to technical variations in the laboratory. If cell count and protein increase together to distinctly abnormal levels, or if there is a significant increase in the titre of serologic positivity, treatment should be resumed regardless of clinical status.

The Diagnosis of Congenital Syphilis (Infantile)

Babies with syphilis who are born alive seldom show outspoken signs of the disease before the third week after birth, although many of them die soon

after birth from convulsions or some internal ailment. Irritability, restlessness, crying and screaming when handled may be the first abnormality noted, although the commonest signs which attract the attention are snuffles and cutaneous eruptions. As the nose becomes obstructed, the infant experiences difficulty in nursing which frequently results in loss of weight. The aphonic cry is characteristic. The typical textbook picture is completed by the appearance of fissuring of the lips and an eczematous impetiginous syphilid at the angles of the mouth, mucous patches, condylomata of the anus, enlarged spleen, and bone lesions.

The cutaneous lesions have a general resemblance to the secondary eruption of acquired syphilis. The areas frequently involved are the chin, mouth, palms, soles and anogenital regions. The indurated papule is more common than the macular eruption, both tending to become eczematous and secondarily infected. The pemphigoid type with vesicles in the palms and soles is relatively rare, but highly diagnostic when it does appear. The radial scars resulting from deep-seated infiltrations around the mouth constitute the well-known rhagades.

The differential diagnosis of the skin lesion may be very difficult. It is seldom safe to make a diagnosis of syphilis in lesions about the buttocks alone unless they are condyloma with positive dark-field findings. The simultaneous involvement of the areas mentioned above is highly diagnostic. The exfoliative dermatitis of infancy in the first few days of its course may be mistaken for syphilis, but it is superficial without induration, advances more rapidly than the syphilid, and shows no special tendency to localize in the face, buttocks, palms or soles at the outset. The severe types of ecthyma produce ulcerative lesions which are rare in infantile syphilis and practically always associated with evidence of secondary pyogenic infection.

A flaccid pseudoparalysis of the upper or lower extremity due to pain is usually a sign of osteochondritis or epiphysitis.

The diagnosis of syphilis in the dead fetus rests upon a combination of evidence of which at times no one element may be absolutely pathognomonic. A thorough study of both parents, a search of fetal viscera for the spirochete, the serologic examination of the maternal and fetal cord blood and of the placenta, should all be made in doubtful or suspected cases. Maceration of the fetus which has been looked upon as diagnostic may be due to other intoxications. The skin usually appears scalded, the epidermis being raised in enormous bullae containing serous or hemorrhagic fluid.

The syphilitic child may be born with a strong positive, a weak positive or a negative serologic reaction. Cooke and Jeans in their series find that syphilitic infants at birth have a negative reaction in 37 per cent, a weak positive in 18 per cent and a strong positive in 45 per cent of the cases. After the first few weeks or months all syphilitic infants have strongly positive reactions. For this reason several physicians advise taking the infants blood for the test on the tenth day after birth rather than at birth.

Theoretically, the child may be infected at any time during intrauterine life, although statistics show that it is not until the fourth to the seventh month that the full force of syphilitic infection is brought to bear upon the fetus. The long period of association with the spirochete brings about a more overwhelming type of infection than is found in any form of acquired disease.

OBITUARY

JOHN BUCHANAN WRIGHT, M.D.

Dr. J. B. Wright, Trenton, a graduate of the Northwestern Medical College, St. Joseph, 1882, died at his home April 19, following a two weeks' illness. He was 77 years old.

Dr. Wright was born at Xenia, Ohio, and moved to Grundy County, Missouri, with his parents in 1873. He taught school previous to studying medicine.

He began his practice of medicine at Spickard immediately after completing his studies. In 1896 he moved to Trenton to continue his practice and in 1903 built the Wright Hospital there. He was active in his practice until a few weeks before his death.

Dr. Wright was active in organized medicine. He served as Councilor of the 4th Councilor District from 1919 to a year ago and was delegate to several Annual Sessions.

He was prominent in civic affairs as well as outstanding in his profession. He had served as mayor of Trenton and in other capacities in civic organizations and activities. He was a Mason and a member of the Rotary Club. During the World War he was chairman of the Liberty Loan campaign, a member of a district medical advisory board and on the council of defense. He was president of the Trenton Trust Company for many years.

Dr. Wright was highly esteemed in his community and by his colleagues throughout the state.

He is survived by a stepson and several nieces and nephews.

WILLIAM H. BOLLINGER, M.D.

Dr. Wm. H. Bollinger, Seymour, a graduate of the Washington University School of Medicine, St. Louis, 1884, died at his home on March 19, aged 76 years.

Dr. Bollinger was born at Marshfield and received his preliminary education there. He practiced in Marshfield for a number of years before he located in Seymour.

He became a member of organized medicine early in his career and in 1928 was elected an honor member of the Webster County Medical Society. He had practiced medicine for more than fifty years and his death is mourned by many patients and friends.

He is survived by his widow, Mrs. Bertha Kenney Bollinger, seven children, three sisters, one brother and several grandchildren.

WILLIAM EDWARD RUDD, M.D.

Dr. W. E. Rudd, Salem, a graduate of Barnes Medical College, St. Louis, 1897, died at his home of a heart attack, April 22, aged 66 years.

Dr. Rudd was born in Wright County, Missouri, and received his early education there. After completing his medical work he began practice in Marshfield, later going to Crescent City, Oklahoma. He went to Salem in 1902 and remained in active practice there, even caring for a few patients to within a short time before his death.

During the World War he was a Major in the Medical Corps.

Dr. Rudd was active in the Dent County Medical Society. He served as delegate to several Annual Sessions and was secretary of the Society for many years. He was also active in many civic affairs and in Masonry.

He is survived by his widow, a son and a daughter.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

Dent County Medical Society, January 8, 1937.

Lincoln County Medical Society, February 16, 1937.

Benton County Medical Society, February 26, 1937.

Barry County Medical Society, May 14, 1937.

Camden County Medical Society, May 14, 1937.

Morgan County Medical Society, May 14, 1937.

BOONE COUNTY MEDICAL SOCIETY

The Boone County Medical Society met in the Colonial Room of the Tiger Hotel at 6:30 p. m., March 2, with twenty-two members attending. After an excellent meal the meeting was called to order by the president, Dr. W. O. Fischer, Columbia.

The chairman of the program committee, Dr. M. Pinson Neal, commented on the excellent attendance and announced the program for the next monthly meeting.

The secretary read a communication from Senator James S. Rollins thanking the Society for their letter regarding Senate Bill No. 3. Letters concerning Senate Bill No. 3 were read from the St. Louis Medical Society and the Marion-Ralls County Medical Society.

An invitation from the St. Louis Medical Society to the Boone County Medical Society was read in which the Boone County Medical Society was invited to the celebration of their 100th anniversary, April 5 to 7.

The secretary read a letter from Dr. C. F. Adams, Director of Laboratories, State Board of Health, in which he urged that the Society cooperate with others in sending letters of appreciation for past services of the laboratories and urging at least no reduction in appropriations for this service, and advising still further appropriations for the improvement of the service to physicians in Missouri. Dr. W. J. Stewart moved that such a letter be written by the secretary and sent to Governor Stark, Dr. Harry F. Parker and the state Senator and Representative. The motion was seconded and carried.

Dr. A. W. Kampschmidt, Columbia, brought up the matter of whether or not the Society would be in favor of sponsoring lay lectures on "Syphilis and Its Control" in the community. Dr. M. E. Cooper, Columbia, called attention to the warning in the *Journal of the American Medical Association* of recent date relative to the too voluminous and miscellaneous spread of material of that nature. Dr. Karl D. Deitrich, Columbia, moved

that the matter be referred to the committee on lay education. This motion was seconded and carried.

Dr. Robert Simpson, Columbia, spoke on "The Use of Foreign Proteins in the Treatment of Infections." Dr. Simpson gave an excellent report on his own experiences in the use of foreign protein and treatment of various streptococcal infections, particularly in the use of typhoid vaccine intravenously in the production of shock therapy. The paper was ably discussed by Dr. Karl D. Dietrich and was well received.

Dr. Claude R. Bruner, Columbia, spoke on "Obstructive Diseases of the Upper Air and Food Passages," reporting an excellent series of cases, primarily those of mechanical obstruction to the trachea. He mentioned the need for prompt intervention and the importance of correct diagnosis. This paper was discussed by Dr. C. M. Sneed and Dr. David V. Le Mone, Columbia.

Dr. William J. Stewart, Columbia, discussed "Fractured Ankles." After an excellent diagrammatic display of fractures and a discussion of the mechanism producing these fractures, Dr. Stewart emphasized the importance of complete approximation of the fragments, early mobilization of the joint to prevent development of painful ankles and traumatic arthritis, bringing out that many times open reduction with fixation of the fragments with nails, screws or other methods often results in quicker union and shorter convalescence, thus reducing the economic loss to the patient. Dr. A. R. McComas, Surgeon, discussed the paper calling attention to some remarkable results which have been obtained through plaster immobilization and early motion.

Meeting of April 6

The Society met in the dining room of Noyes Hospital at 6:30 p. m., April 6, with twenty-two members present.

After an excellent dinner the members adjourned to the lobby of the new Student Health Center where the meeting was called to order by the president.

The program for the next meeting was announced and also that the Woman's Auxiliary would serve the evening meal at the meeting at the summer cottage of Dr. F. E. Dexheimer on South Glenwood, Columbia.

The secretary read communications from Governor Lloyd C. Stark, Senator J. Sidney Rollins, Dr. Harry F. Parker and Dr. C. F. Adams expressing their thanks for the letters they had received commending the service of the laboratories and advancing best wishes for their continued expansion and development.

A communication from the Cole County Medical Society was read stating that that Society would like to have the 1938 Annual Meeting in Jefferson City and urging that the Boone County Medical Society cooperate with them.

The application for membership of Dr. O. B. Mayes, Centralia, was presented and referred to the board of censors.

Dr. N. R. Ziegler, Columbia, introduced the first speaker, Dr. M. P. Ravenel, Columbia, who spoke on "The Discovery and Proof of the Mosquito as the Conveyor of the Malaria Parasite." Dr. Ravenel's intimate acquaintance with the circumstances surrounding the discovery as well as the men concerned in the discovery, gave his talk a significance not often found in such addresses. He brought out that Sir Ronald Ross should receive the actual credit for the discovery in spite of other claims to the contrary, and his discussion of Sir Ross' personal talents and other interests, showing him to be a versatile person indeed, was interesting to the utmost. This paper was discussed ably by Dr. William B. Brown, Columbia, whose astounding facts

and figures concerning Sir Ross, the malarial parasite and the disease it causes, was very timely and well presented. The paper and its discussion was well received.

Dr. David V. Le Mone, Columbia, spoke on "Roentgen Ray Therapy in Inflammatory Conditions." Dr. Le Mone discussed briefly the numerous conditions, particularly those of inflammatory nature, in which roentgen ray therapy had proven to be of value, and concluded his interesting recommendations with a series of case studies of infections, largely those of staphylococcal origin, in which the use of roentgen ray had promptly alleviated the condition. He brought out that early use of roentgen ray in these conditions not only resulted in many instances in the absorption of the process without drainage, but more strikingly the subsidence of the pain which is often more troublesome to the patient than drainage. In the absence of the scheduled discussants Dr. Le Mone's paper was discussed by various members. His interesting presentation opened a new line of thought for those present and was given an enthusiastic reception.

MAURICE E. COOPER, M.D., Secretary.

DUNKLIN COUNTY MEDICAL SOCIETY

The Dunklin County Medical Society met in the Boy Scouts' Cabin at Kennett, April 6. Dinner preceded the business meeting.

Dr. Paul Baldwin, Kennett, gave a paper on "Tuberculosis" and stressed that Dunklin County still had a percentage of 95 deaths for 1936. He showed that by the Statutes of Missouri the district could have a much needed tuberculosis sanatorium.

It was suggested that it be requested that Dr. Baldwin appear on the program of the Six County Medical Society.

A paper written by Dr. J. H. Keim, Kennett, was read by Dr. Wallace D. English, Cardwell, on "A Discussion of Socialized Medicine or Sickness Insurance." In this paper it was shown that: (1) The profession knows little about state medicine or socialized medicine, therefore the public is ill informed and has many erroneous ideas about the subject and it is up to the profession to know more of what is confronting it, and to teach the public. (2) That state medicine is harmful to the science of medicine. (3) That it is a natural product of a highly industrial age. (4) Sickness insurance is this: A small portion of the wage of the worker is contributed to a central fund, to this is added a contribution from the employer and a contribution or grant from the state or Federal government. Some of these plans provide for the care of the indigent sick by having the state pay his required quota, others leave the indigent to be cared for as they have been in the past. (5) For such a plan to come into existence a vast and complicated organization of administrators, welfare workers, etc., must be associated with it. (6) These plans not only fail to solve the problems they are established to solve but also create a situation which is far worse than the one they are trying to correct. (7) The advocates of this plan do not recognize that a great change in the quality of any social phenomena almost invariably changes the quality and character of the institution involved. (8) It would seem that a cause so vital and necessary as this one is acclaimed to be would be championed by at least one of the parties involved, i. e., either the potential patients, the laborers, or the medical profession. However, this is not so; we find that the chief advocates and agitators for this movement to be the professional welfare worker associated with or backed by the funds of various philan-

thropic donations and institutions. (9) It tends to destroy that essential relationship of patient to physician by inserting a third nonprofessional party into this relationship. (10) There still remains the problems of the care of the indigent and of the dependents of the insured. Either this care is left as it always has been in the past, or the indigent patient is made a member of the society, his premium being paid by the state, which means more taxation. (11) Those who have practiced in the country have often seen patients in houses unfit for human habitation; they have seen pneumonia patients in overcrowded homes with other members of the family sleeping in the same bed with the patient; they have seen typhoid and dysentery or colitis patients in houses without screens, with outside privies, among people who do not seem to have the faintest conception of personal hygiene and sanitation. This picture is not a rarity. I believe most physicians see it. I contend that these are not primarily medical problems but are economic and social problems. Give these people a decent wage, feed, clothe and house them properly, and automatically the greatest part of the health problem will be taken care of.

There was much favorable discussion of this fine paper by Dr. Keim.

The Society voted to assist the Dunklin County Tuberculosis Association when they hold their tuberculosis clinics April 20, 21 and 22.

The Society voted to support the things that are public health problems.

T. J. RIGDON, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society met in Joplin, April 13.

It was decided that the radio broadcasts be discontinued until next fall, the committee to continue a study of the situation.

It was voted that if arrangements could be made the postgraduate course on pediatrics, now being sponsored by the Society, be held on Tuesday evenings instead of Monday evenings.

The name of Dr. S. A. Grantham, Sr., was placed on the honor roll.

Dr. R. M. James, Joplin, reported a conference he had had with the officers of the Missouri State Medical Association.

Dr. Wm. Kinney, Joplin, spoke on "Nephritis and Hypertension." The discussion was opened by Dr. O. T. Blanke, Joplin.

Meeting of April 20

A special meeting of the Jasper County Medical Society was called to order by the vice president, Dr. E. J. McIntire, Joplin, at the Connor Hotel, April 20.

The special order of business concerned the question of cooperation with the Rural Rehabilitation plan. A letter from the Committee on Medical Economics of the State Medical Association was read and discussed. Information from the director of Jasper County was presented by Dr. McIntire.

A committee was appointed to investigate the situation in the county and report at the next meeting to be held before the Annual Session. The committee appointed was Drs. R. W. Webster, Carthage, and Ed. James, Joplin.

It was decided that in view of the joint meeting with the Southwest Dental Society on April 26, no special meeting should be called for that week.

The remainder of the time was turned over to Dr. O. F. Bradford for his regular postgraduate lecture on "Pediatrics."

H. M. BLACK, M.D., Secretary.

PEMISCOT COUNTY MEDICAL SOCIETY

The Pemiscot County Medical Society met at the Eat Shop in Caruthersville, April 22, at 7 p. m. with Dr. J. R. Pinion, Caruthersville, vice president, presiding.

The following officers were elected: President, Dr. J. R. Pinion, Caruthersville; vice president, Dr. Philip Aquino, Caruthersville; secretary-treasurer, Dr. W. R. Limbaugh, Hayti; censor for three years, Dr. C. C. Castles, Caruthersville.

Dr. T. J. Collins, Caruthersville, the president of the Society, died on April 1. A committee on resolutions of respect was appointed, a report to be sent to the STATE MEDICAL JOURNAL and to his family.

A County Rehabilitation committee was appointed as follows: Dr. J. B. Luten and Dr. J. R. Pinion, Caruthersville; Dr. L. E. Cooper, Cooter; Dr. A. J. Speer, Deering, and Dr. W. R. Limbaugh, Hayti.

It was decided to have monthly meetings at the office of some member each month. The first meeting will be with Dr. A. J. Speer, at Deering.

W. R. LIMBAUGH, M.D., Secretary.

PERRY COUNTY MEDICAL SOCIETY

The Perry County Medical Society was called to order by the president, Dr. B. T. Koon, Perryville, at 8:15 p. m. at Dr. Koon's office, April 14.

The following problem was presented for discussion: Here-to-fore the indigent persons of Perry County requiring medical attention have been cared for entirely by the goodwill of the local doctors without them receiving any financial aid from the county. Since this burden is becoming heavy to the doctors, it was decided to ask the county court for some financial assistance in caring for the indigent. The secretary was advised to draw up resolutions and a workable plan which is to be passed upon by the Society and then presented to the county court.

Plans were made to attend the Missouri State Medical Association Annual Session at Cape Girardeau.

Members present were Drs. B. T. Koon, O. A. Carron and J. J. Bredall, Perryville.

O. A. CARRON, M.D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY

The Scott County Medical Society met in Sikeston, April 12.

The following officers were elected: President, Dr. E. J. Nienstedt, Sikeston; vice president, Dr. A. E. Lee, Illmo; secretary, Dr. U. P. Haw, Benton; censors, Drs. H. M. Kendig, Sikeston, G. T. Dorris, Illmo, and G. W. H. Presnell, Sikeston. Dr. E. J. Nienstedt, Sikeston, was elected delegate to the Annual Session and Dr. Howard A. Dunaway, Sikeston, alternate.

A committee on medical economics was appointed consisting of Drs. G. T. Dorris, Illmo; George A. Sample, Chaffee, and U. P. Haw, Benton.

Dr. U. P. Haw, Benton, was selected to serve on the legislative committee.

U. P. HAW, M.D., Secretary.

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met at the Elliott Hotel, Mountain Grove, April 2, for dinner at noon with the following members and guests present: Drs. J. A. Fuson, Mansfield; P. D. Gumb, E. C. Bohrer and A. H. Thornburgh, West Plains; R. W.

Denney, R. A. Ryan and A. C. Ames, Mountain Grove; R. M. Norman, Ava; W. T. Herron and L. M. Dillman, Houston; Hans L. Kleine and W. C. Scrivner, St. Louis; E. G. Beers, Seymour, and J. M. Coats, Cabool. The meeting was called to order by the president, Dr. R. A. Ryan, Mountain Grove.

Dr. Hans L. Kleine, St. Louis, spoke on "Modern Technic of Contraception" devoting most of his talk to vaginal diaphragms and jellies which have been proved the most certain and least harmful of the many things that have been proposed.

Dr. W. C. Scrivner, St. Louis, spoke on "Causes and Correction of Human Sterility" and showed slides illustrating some of the conditions existing, some of which can be corrected and some cannot. He pointed out that in about one third of the cases of sterility the trouble is in the man and in two thirds of cases in the woman. He explained that the so-called "safe period" is for about ten days midway between menstrual periods.

A vote of thanks was given the speakers.

A. C. AMES, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met at 8:45 p. m., April 28, with twelve members and five guests present.

Dr. B. Y. Glassberg, St. Louis, read a paper on "Obesity."

Dr. Cyril M. MacBryde, St. Louis, read a paper on "Adequate Treatment of Early and Asymptomatic Syphilis." He emphasized that periods of rest have now been abandoned in the treatment of syphilis.

Dr. Lee D. Cady, St. Louis, spoke on "The Treatment of Cerebrospinal Lues."

Dr. E. H. Rohlfing, St. Louis, spoke on "Syphilis in Infancy."

These papers were discussed by Drs. H. J. Stein, Julius Jensen, J. D. Thurmon and Andy Hall, Jr., St. Louis; R. A. Walther, Overland; D. S. Werth, Kirkwood, and R. B. Denny, Creve Coeur.

Dr. O. P. Hampton, St. Louis, reported on the resettlement plan and after some discussion it was determined that the delegates go uninstructed on this point to the State Annual Session.

It was reported that the legislative committee had not as yet functioned because through an oversight the members though informed of their appointment had not been given the names of the other members of the committee. Dr. R. B. Denny, Creve Coeur, recommended that the delegates not be instructed regarding legal matters for the State Meeting.

Dr. C. P. Dyer, St. Louis, spoke for a basic science law to come up at the next legislative assembly and also for a medical lien law.

Dr. Andy Hall, Jr., St. Louis, reported that the Medical-Dental Service Bureau can continue for eleven more months and that the Central Admitting Bureau will be established. He moved that a questionnaire be sent to all the members of the Society regarding the future maintenance of these bureaus. The motion carried.

Dr. C. P. Dyer, St. Louis, proposed an amendment raising the dues to \$15. No action was taken.

JULIUS JENSEN, M.D., Secretary.

VERNON-CEDAR COUNTY MEDICAL SOCIETY

The Vernon-Cedar County Medical Society met April 14.

Election of officers for 1937 resulted as follows:

President-elect, Dr. John S. Newlon, Nevada; secretary-treasurer, Dr. R. W. Pearse, Jr., Nevada; auxiliary committee on public policy, Dr. C. T. McConnell, Nevada; delegates, Drs. T. R. Frazer, Nevada, and J. W. Dawson, Eldorado Springs; alternates, Drs. W. S. Love, Nevada, and J. R. Williams, Eldorado Springs; board of censors, Drs. E. H. Liston, Sheldon; F. A. Martin and F. L. Martin, Nevada.

Dr. H. A. Simrell, Stockton, president-elect last year, was installed as president. Dr. R. W. Pearse, Jr., Nevada, was installed as secretary-treasurer.

Dr. J. T. Hornback, Nevada, was elected an honor member.

It was decided to hold meetings on the second Thursday of each month except in July and August, the meetings to be held at State Hospital No. 3, Nevada.

The Society requested a discussion of "Cancer of the Rectum" for the May meeting.

Dr. C. T. McConnell, Nevada, presented a case of an unusual dermatitis of the face for discussion by the Society.

R. W. PEARSE, JR., M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

15th Annual Meeting, Atlantic City, 1937

President, Mrs. Robert Fitzgerald, Wauwatosa, Wisconsin.

President-Elect, Mrs. Augusta Kech, Altoona, Pennsylvania.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.

President-Elect, Mrs. Herbert L. Mantz, Kansas City.

The National Auxiliary will hold its 15th annual meeting in Atlantic City, June 7 to 11. Missouri is entitled to ten delegates but it is expected that many more Missouri women will attend.

The new "Year Book" of the Missouri Auxiliary which has just been issued under the direction of Mrs. Frank L. Davis, St. Louis, corresponding secretary, shows twenty-two active auxiliaries with a membership of 1050. The book contains pictures of the organizer, Mrs. Willard Bartlett, St. Louis; two national presidents, Mrs. George Hoxie, Kansas City, and Mrs. A. B. McGlothlan, St. Joseph; the present national vice president, Mrs. David S. Long, Harrisonville, and the past state presidents. The fine historical sketch of the Missouri Auxiliary was written by Mrs. David S. Long. The "Year Book" is an achievement for which both Mrs. Davis and Mrs. Walter Kirchner, St. Louis, are to be congratulated.

Mrs. Charles H. Werner, St. Joseph, the new president of the Missouri Auxiliary is a native Missourian and has resided in St. Joseph since childhood. She is

the daughter of the late attorney, James Moran, who practiced in St. Joseph for many years. She was educated at Central High School and the Academy of the Sacred Heart, receiving scholastic awards from both institutions. She taught in St. Joseph public schools then engaged in secretarial work before her marriage to Dr. Werner in 1916.

She is a charter member of the Buchanan County Auxiliary and served as secretary for four and a half years and as president for two years. She served as state convention chairman in 1934 when the annual convention was held in St. Joseph. For the next two years she served as first vice president and chairman of organization of the State Auxiliary. During the last year she has been chairman of the state essay contest as well as president-elect. She has been a member of the State Auxiliary Board since 1932 and has been *Hygeia* chairman for the Buchanan County Auxiliary since 1932.

During the last year she has served as a member of the "Mayor's Recreation Committee" which operates about twenty supervised playgrounds in St. Joseph. She is a member and on the program committee of the Philippine Duchesne Study Club and also is a member of the Missouri Association for Social Welfare. Other of her activities are on the health committee of the Y. W. C. A., on the Women's Crusade making talks during the community chest and relief fund drives, on the executive committee of the Guild of St. Joseph's Hospital, the Buchanan County Child Health Council, the Council of Social Agencies, the League of Women Voters and the Women's Field Army for the Control of Cancer. As president of the Missouri Auxiliary she will be on the board of the National Auxiliary.

Mrs. Herbert L. Mantz, Kansas City, is the president-elect. Mrs. Mantz is a past president of the Jackson County Auxiliary and served as convention chairman when the National Auxiliary met in Kansas City in 1936.

BOOK REVIEWS

CHEMICAL PROCEDURES FOR CLINICAL LABORATORIES.

By Marjorie R. Mattice, A.B., Sc.M., Assistant Professor of Clinical Pathology, New York Post Graduate Medical School of Columbia University, New York City, etc. Illustrated with 90 engravings and two colored plates. Philadelphia: Lea & Febiger. 1936. Price \$6.50.

This is an excellent laboratory guide of analytical chemical procedures. The author has drawn upon the experience of a decade of personal teaching for the material presented.

The value of the book lies in the completeness and clarity of the directions given and the practicability of the methods. All types of procedures are encountered. Their arrangement is such that a minimum of time is required for their comprehension. Tabulation of reagents and procedures is employed; calculations are given in detail and are followed by normal values. Clinical applications are terse but lucid.

Since the routine chemical tasks of the clinical laboratory fall into five groups, blood determinations, urinalyses, tests upon gastro-intestinal secretions, analyses of miscellaneous biological fluids and preparation of reagents, these divisions have been followed in the organization of the biochemical data.

The author states that the book should be comprehensible to the none-too-well equipped technician without in any sense being elementary or theoretically technical. Inasmuch as it is wholly impossible to do intel-

ligent work without an adequate background the reviewer wonders if even this excellent book can accomplish the impossible. R. E. D.

MODERN TREATMENT AND FORMULARY. By Edward A. Mullen, P.D., M.D., F.A.C.S., Assistant Professor Pharmacology and Physiology, Philadelphia College of Pharmacy and Science, etc. Foreword by Horatio C. Wood, Jr., Professor of Therapeutics in University of Pennsylvania, Graduate School of Medicine, etc. Philadelphia: F. A. Davis Company. 1936. Price \$5.00.

This volume seems to be planned as a vade mecum or compend for the physician to have in his pocket, or on his desk or in his bag, in order to obtain quick reference.

It is quite similar to the complete pediatrician emanating from Duke University in that it gives in alphabetical arrangement, with numerical cross filing, encyclopedic references to drugs and therapeutic procedures. It contains also tables of dosages, some phrases in French, German, Italian and Spanish, emergency suggestions and highlights on differential diagnosis.

Nothing betrays a writer quite as quickly as for him to write a textbook on therapeutics, for it shows not only the principles on which he proceeds, but also his knowledge and practical experience. This book is obviously a compilation by one who does not have to deal directly with patients. It will serve, therefore, better as a jog to one's memory as to names and dosages, as used in Philadelphia, than for a guide as to the practice of medicine. Your reviewer tried to utilize the table of Spanish phrases as if he were to see a Spanish patient and gave it up as a bad job. Some sort of footnote should be put down to explain the meaning and sound of the abbreviations. G. H. H.

DR. COLWELL'S DAILY LOG FOR PHYSICIANS. A Brief, Simple, Accurate Financial Record for the Physician's Desk. Champaign, Illinois: Colwell Publishing Company, Not Inc. 1936.

The bookkeeping and appointment records of the physician's office are greatly simplified by the use of Dr. Colwell's Daily Log for Physicians. It permits a rapid and complete daily financial report of each patient's entry, office and personal expenses so that the accounting is simple at the end of every month and year. In addition to the comprehensive instructions for use, the forms for daily business transactions, expense accounts, monthly balances, surgical and obstetrical records are clear and brief. The concise and itemized charts for computing income tax reports are self-explanatory. This Log is a useful sedative for the headaches of office bookkeeping.

Clinical data index cards and ledger index cards are supplied by the same publisher at a nominal charge. L. H. P.

A TEXTBOOK OF ROENTGENOLOGY. The Roentgen Ray in Diagnosis and Treatment. By Bede J. Michael Harrison, M.B., Ch.M., D.M.R.E. (Cantab), F.A.C.R., Director of Department of Roentgenology, Vancouver General Hospital, etc. Baltimore: William Wood & Company. 1936. Price \$10.00.

A very extensive book in which an attempt has been made to cover all fields of roentgenology, diagnostic and therapeutic; pathology and anatomy. Many

of the more important subjects are treated very lightly and the viewpoint of one individual is taken, rather than facts and proofs.

This should be an ideal book for the general physician, as it is a panorama of roentgen diagnosis and treatment which he may encounter in his practice, and it gives a correlation of anatomy, pathology, and roentgenology.

The average radiologist will find the book rather inadequate and with many repetitions regarding anatomy and pathology, with a limited description of the roentgen findings in many instances.

The chapters on General Principles of Radiology, Physics, Radio-Physiology and Biology, Technic and the Nature of Roentgen Evidence are very complete, well written and understandable. I. H. L.

THE PRACTICE OF MEDICINE. By Jonathan Campbell Meakins, M.D., LL.D., Professor of Medicine and Director of the Department of Medicine, McGill University; Physician-in-Chief, Royal Victoria Hospital, Montreal; formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh. With 505 illustrations including 35 in color. St. Louis: The C. V. Mosby Company. 1936. Price \$10.00.

Most recent books on the practice of medicine are ponderous and weighty tomes of somewhat encyclopedic character. It is gratifying, therefore, to find a new "Practice of Medicine" written in a pleasing and interesting style, and profusely illustrated.

The introduction and the sections on metabolic and endocrine diseases are especially outstanding. Although medical men will doubtless differ with the author on minor matters, the simplicity of style, and the clarity of the entire book particularly recommend it to student use. However, it is a welcome addition to any physician's medical library, where it should occupy a place alongside Osler. B. S. P.

CARCINOMA OF THE FEMALE GENITAL ORGANS. By M. C. Malinowsky and E. Quarter. Translated from the Russian by A. S. Schwartzmann, A.B., M.D. Boston: Bruce Humphries, Inc. 1937. Price \$5.00.

This translation of a collection of essays by various Russian authors exhibits a defect frequently met with in translations. In attempting to adhere too closely to the thought-expression of the author the translator becomes ambiguous and his constructions often so awkward as to make very difficult reading. The contributors to this small brochure of 255 pages are most of them unfamiliar with the English literature and their stated purpose is to present a volume in which the problem of carcinoma of the female genitalia may be treated within the scope of a single work. To this end there is included a chapter on carcinoma of the breast.

The work is, as a whole well planned and the chapters on pathogenesis and etiology of tumors present some interesting data on some of the newer theories of the origin of cancer cells. The classification of carcinoma of the uterus is somewhat unsatisfactory because of an attempt to lump corpus and cervix carcinoma under a single heading. There is also no mention made of any classification of uterine cancer according to cell type. Carcinoma of the ovary is well treated but the malignancies of the urethra, vulva and vagina receive little more than mere mention.

Treatment is considered under several headings and those chapters dealing with the surgical and radiation

therapy of new growths follow closely the trend of thought current in the American and English literature on the subject. Under palliative treatment, however, some measures are recommended which must be considered more novel than scientific, more spectacular than practical.

There is a final chapter in which Soviet propaganda is cleverly worked into an essay on the necessity of evaluating the degree of disability for work in women with genital cancer and women who have been operated on or treated by X-ray or radiated for such tumors. This is apparently intended to serve as a guide for the Soviet insurance examiner who must decide what degree of work these patients are capable of doing and whether or not they are to receive state insurance benefits. An appreciation of the implications to be drawn from this commentary on what must be the ultimate in socialized medicine may serve to dampen somewhat the ardor of the advocates of that system of health supervision.

The book as a whole is one which will interest primarily the specialist in the field of gynecology. It is not a text for the student nor a manual for the general practitioner. J. A. H., Jr.

A HAND-BOOK OF OCULAR THERAPEUTICS. By Sanford R. Gifford, M.A., M.D., F.A.C.S., Professor of Ophthalmology, Northwestern University Medical School, Chicago, Ill., etc. Second edition, thoroughly revised. Illustrated with sixty engravings. Philadelphia: Lea & Febiger. 1937. Price \$3.75.

In this second edition of his very popular and extremely useful work on ocular therapeutics Dr. Gifford has brought up to date a textbook which should be accessible to every ophthalmologist and to others in frequent contact with ocular disease.

Instead of listing all therapeutic measures which have been described for the various pathological conditions of the eye he considers only those procedures which have been of undoubted value in his hands and which should be of great service to men with a smaller amount of material at their disposal. He has analyzed critically a large number of the more recent therapeutic suggestions and has accepted only those which are rational and are found to be effective in actual practice. Except for the major surgical procedures the field of ocular therapeutics is covered with great care. D. B.

ALLERGIC DISEASES: Their Diagnosis and Treatment. By Ray M. Balyeat, M.A., M.C., F.A.C.P., Associate Professor of Medicine and Lecturer on Diseases Due to Allergy, University of Oklahoma Medical School, etc., Assisted by Ralph Bowen, B.A., M.D., F.A.A.P., Chief of Pediatric Section, Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Oklahoma. Illustrated with 132 engravings, including eight in colors. Fourth edition, revised and enlarged. Philadelphia: F. A. Davis Company. 1936. Price \$6.00.

This book is now in its fourth edition. Most of the chapters have been completely rewritten and brought up to date. A few new chapters have been added. Since the book was written primarily for the general practitioner, a great deal of theoretical discussion and reference to the literature has been purposely omitted. It is written in a very interesting and entertaining manner and will be of value to the physician not specializing in allergy because it presents scientific material in a simple and usable form. O. R. W.

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THE USE AND ABUSE OF INTRAVENOUS THERAPY IN SURGERY

THOMAS G. ORR, M.D.

KANSAS CITY, KANSAS

Samuel Pepys, an inquisitive recorder of many interesting observations of his time, mentioned intravenous therapy as an unusual experiment more than 250 years ago. Through the years since that time the practice of intravenous therapeutics has developed until now it is a daily occurrence to give drugs, serums, vaccines and solutions directly into the vein. With the development of any method of therapy extremes are likely to be reached which are only evident after the maturity of years shows the folly. As historical examples of therapeutic extremes we might mention polypharmacy with its shot-gun prescriptions and bleeding of the sick to exsanguination. From such exaggerated methods of therapy finally develop logical as well as physiological methods of treatment. At the crossroads in such therapeutic evolution now stands the treatment of dehydration conditions by intravenous and subcutaneous therapy. The necessity of establishing a standard method for the administration of intravenous infusions is quite apparent. The value of such treatment cannot logically be questioned but the methods of administration may well receive more careful scrutiny to minimize certain inherent dangers from the technic and as a result of the quantity and character of liquid given.

In order to properly understand the rationale of intravenous therapy one should have some knowledge of the chemical changes that occur in the body as a result of starvation, dehydration and disease. Numerous observers have noted a decrease in the total blood serum proteins after a period of starvation. This results in an unstable equilibrium between the blood and body tissues which predisposes to edema when excessive parenteral liquids are given. It has also been suggested that the permeability of the capillaries is increased in starvation due to a lack of oxygen supply to the tissues.¹ Dehydration

of the body tissues causes impairment of circulation, impairment of kidney function with retention of the waste products of metabolism, alteration of metabolic processes and disturbance of the heat regulating mechanism.² In certain disease conditions, especially those associated with vomiting or diarrhea, there may be a profound disturbance of the chemical elements of the body producing an acid-base imbalance. In the treatment of many ill patients, especially that group who cannot take food by mouth, the problem of parenteral feeding and watering becomes imperative to sustain life until the disease condition is corrected.

At present the solutions commonly used for intravenous infusion and hypodermoclysis are dextrose and sodium chloride. As a substitute for physiologic sodium chloride solution one may use Ringer's or Hartman's solution. These solutions, which are isotonic, are relatively harmless if given properly and in quantities that are not excessive. Solutions given by hypodermoclysis can never be given rapidly since absorption is relatively slow. This method of parenteral fluid administration is seldom dangerous if given in the proper location with careful aseptic technic and in reasonable quantities. Fluid given by hypodermoclysis should never be introduced near large vessels or nerves or near joints. There is a wide variation in the type, quantity and concentration of fluids that may be given by intravenous infusion. This method of giving fluid has greater potential danger than hypodermoclysis.

The chief possible dangers of intravenous infusion may be listed as follows: (1) Immediate reactions with chills and fever; (2) overburdening of the circulatory system by a rapid increase in blood volume; (3) production of general edema and edema of the lungs; (4) thrombosis at the site of the intravenous injection with embolism and, (5) possible increase in dehydration by use of hypertonic solutions.

Reactions may be reduced to a minimum by the use of properly prepared solutions given slowly through clean apparatus. A technician specially trained in making intravenous solu-

tions under the guidance of a chemist is desirable. In hospitals where this is not possible commercial preparations of dextrose and sodium chloride are available and are satisfactory for use when diluted in proper proportions with freshly distilled water. It is now generally believed that all intravenous infusions should be given slowly except in emergency cases when a rapid increase in blood volume is desirable. Hyman and Hirshfeld³ studied the effects of the velocity of intravenous injections and came to the conclusion that large quantities of fluids could be given by slow intravenous drip without serious reactions. As a practical working plan the commonly used intravenous solutions can be given safely by the drip method at a rate of 60 drops per minute.

A weakened circulatory system may be overburdened by a too rapid infusion of fluid. Some consideration must, therefore, be given to the pathologic changes that may exist in the patient's heart and blood vessels. Clark⁴ has reported four deaths which he believes were due to cardiac failure resulting from intravenous infusions of dextrose and sodium chloride solutions. In my own experience one death has been attributed to an excessive quantity of fluid given by vein to an anemic patient with damaged heart muscle. It is quite true that normal experimental animals⁵ and patients with good circulation and kidney function can tolerate large quantities of intravenous fluids, but this knowledge should not be justification for the administration of excessive quantities of fluid to extremely ill patients.

The development of subcutaneous edema during the administration of intravenous infusions is a common clinical observation. This type of edema is first noted about the feet and ankles, in the scrotum and in the lumbar region. The clinical and experimental work of Jones and Eaton^{6,7} emphasizes the importance of edema in surgical patients as a result of intravenous therapy. The type of patient in which such edema is likely to develop is one that is in a state of poor nutrition with low blood serum protein. The reduction in serum protein due to starvation or lack of nitrogen intake is further increased by blood loss, purulent drainage and the general effects of infection. The low blood serum protein creates an imbalance between the hydrostatic pressure in the capillaries and osmotic pressure of the plasma proteins.⁸ When too much fluid is given it leaks through the capillary walls into the interstitial tissues and when in sufficient quantities produces edema. Jones and Eaton observed that edema accumulates in the parenchymatous organs as well as in the subcutaneous tissues and draw the reasonable conclusion that the cardio-respiratory apparatus will not function normally with an

excessive quantity of water in the muscles of the heart and tissues of the lungs. It is now well known that the development of edema in patients having low blood serum protein is often initiated by giving excessive quantities of sodium chloride solution. In our experience this frequently has been found true in patients with diseases of the gastro-intestinal tract when feeding by mouth is prohibited for several days. Patients with severe peritonitis are particularly prone to develop edema after prolonged parenteral administration of dextrose and saline solutions. The appearance of subcutaneous edema in such cases is a signal to reduce the fluid and salt intake and to begin feeding by mouth protein containing food as soon as toleration will permit. Blood transfusions are helpful at this time but cannot be expected to supply sufficient protein to raise the serum proteins to normal.

It has been observed clinically and by experiment that the technic used in giving intravenous solutions may predispose to thrombosis and embolism. Bsteh and Teichmann⁹ have reported three cases of pulmonary embolism as results of thrombi produced by the injection treatment of varicose veins. Orator and Schleusing¹⁰ record a death attributed to continuous infusion of dextrose in the basilic vein. In their case autopsy showed thrombus formation at the site of injection and both pulmonary and cerebral emboli. They explain that the brain emboli were possible because of a patent foramen ovale. They concluded that continuous infusions should be discouraged. Friedrich and Buchaly¹¹ have described two deaths due to pulmonary embolism attributed to continuous phlebotomy. Other authors^{12,13} have stressed the danger of pulmonary embolism as a result of continuous intravenous infusion and have condemned the method. We have had one death at the University of Kansas Hospital directly attributable to intravenous therapy. This patient was a man, aged 58, who had had a bilateral herniorrhaphy under local anesthesia seven days before death. Because of postoperative abdominal distention fluid was discontinued by mouth and given by hypodermoclysis and intravenous infusion. A thrombus developed at the site of vein injection. At autopsy pulmonary embolism and infarction were found. It was the pathologist's opinion that death resulted from pulmonary embolism as a result of an embolus from a thrombus in the basilic vein. Experimental work with dogs by Rumold¹⁴ has shown quite convincingly that continuous intravenous infusions of 10 per cent dextrose in physiologic sodium chloride solution will produce thrombosis at the site of injection with pulmonary emboli and infarction. The same results occurred regardless of the type of cannula used. Rumold's experimental findings in-

dicate that continuous intravenous infusions are dangerous.

The possibility of still further dehydrating an already depleted patient by giving hypertonic solutions should be more generally recognized and heeded. As a result of prolonged intravenous injection of hypertonic solutions of sugar, Keith¹⁵ noted an excessive excretion of urine, a loss of body weight from 7 to 10 per cent and a decrease in the volume of circulating blood. The intravenous use of commercial hypertonic solutions of dextrose has apparently been rather prevalent in recent years. Ill patients should not be subjected to the dehydrating effects of such solutions except in those cases in which brain shrinkage or diuresis is indicated.

DISCUSSION

The contraindications and dangers of such a worthy and already time honored method of therapy as intravenous infusions should be more generally recognized. It may truthfully be said that there is still much to be learned about the indications and effects of such therapy. When Matas¹⁶ suggested the use of the "continuous intravenous drip" in 1924 he was aware of its dangers and warned that "salt infusions, whether by hypodermoclysis, intravenous drip or by any other method of administration, are positively contraindicated in all toxic states in which degenerative changes in the renal epithelium with salt retention occur, and also in all conditions in which pulmonary stasis from an enfeebled cardiovascular circulation predisposes to hypostatic edema of the lungs." It is quite apparent from these remarks that a proper selection of patients suitable to receive intravenous infusions is of prime importance. It is equally important that proper types of solutions and the technic with which they are given be appreciated.

The daily fluid need of the usual sick surgical patient has been estimated by Coller, Dick and Maddock¹⁷ as 3500 cubic centimeters. This quantity will provide for the average daily loss of water by vaporization (2000 cc.) by the skin and lungs, and excretion (1500 cc.) by the kidneys. In addition any abnormal losses of fluid, such as vomitus, wound drainage, drainage from intestinal or biliary fistulae and sputum should be calculated and taken into consideration when the daily need of water is estimated. If the patient is dehydrated at the beginning of treatment the average daily maintenance quantity of water indicated above as 3500 cubic centimeters is not sufficient. Coller and his associates have demonstrated that a patient showing the common signs of dehydration such as a dry hot skin, a dry tongue, sunken eyes, fever and scanty urine has lost an amount of fluid equal to 6 per cent of the body weight.

They, therefore, indicate that the water need of a dehydrated patient weighing 60 kilograms may be calculated as follows:

1. Water for vaporization	2000 cc.
2. Water for urine	1500 cc.
3. Abnormal water losses during the 24 hours by vomiting, etc.	?
4. Water to restore fluids previously lost—6 per cent of 60 Kg.	3600 cc.
	<hr/> 7100 cc.

In severely dehydrated patients the above quantity may be given during the first twenty-four hours to be followed by a daily intake of approximately 3500 cubic centimeters, depending upon the age and size of the patient.

The solutions of choice to be used routinely for intravenous and hypodermic injection are 5 per cent dextrose and physiologic sodium chloride or Ringer's solution. These solutions are isotonic and may be given alone or in combination with a minimum of danger. If given intravenously the drip method at a rate of 60 drops per minute is preferred. We are now giving dehydrated adult patients a daily average of 2000 cubic centimeters of 5 per cent dextrose in Ringer's solution by vein and 1500 cubic centimeters of the same solution or Ringer's solution alone by hypodermoclysis. The total quantity and the salt content are carefully checked and altered to suit the needs of the individual patient. To minimize discomfort to the patient the above solutions may be given half in the forenoon and half in the evening.

Because of the danger of local venous thrombosis and embolism continuous infusion over a period of days is not recommended. Infusions into veins should be interrupted and the site of injection changed to avoid thrombosis and infection. Veins on the dorsum of the hand or foot are often satisfactory. Gallie and Harris¹⁸ advise the use of veins as small as will accommodate the needle in order to permit as rapid a flow as possible to prevent clotting.

Hypertonic solutions should be avoided unless especially indicated to dehydrate or produce diuresis. An exception may be made to this rule in rare instances if the whole blood chlorides have been reduced below 400 milligrams per 100 cubic centimeters of blood, in which case 250 cubic centimeters of a 2½ or 5 per cent solution of sodium chloride may be slowly given by vein to restore rapidly the body chlorides. Hypertonic solutions undoubtedly cause more vein and blood damage than isotonic solutions. They may further increase dehydration by extracting fluid from the tissues. The giving of 50 per cent dextrose intravenously to ill patients should be condemned as likely to do

more harm than good. The danger of giving too much sodium chloride solution is worthy of special emphasis. While sodium chloride is one of the most essential inorganic compounds in the animal body and, according to Gamble and Ross¹⁹ "the only one of a long list of salts containing both of the ions specifically required for plasma repair," too much salt may cause an excessive accumulation of fluid in the tissues resulting in general edema. To emphasize this point attention is called to the average daily intake of sodium chloride by a normal individual which is from 5 to 6 grams. When this is compared with 27 grams administered in 3000 cubic centimeters of physiologic salt solution per day the danger of excessive sodium chloride accumulation in the body tissues is quite apparent. Sodium chloride is not needed when the blood shows a normal chloride content. When patients are receiving fluids by vein or under the skin, it is therefore advisable that determinations of the blood chlorides be made every second or third day. At the first sign of subcutaneous edema sodium chloride should be discontinued. In such an instance the fluid intake may usually be safely continued by giving 5 per cent dextrose. As a rule, however, the total intake of fluid should be reduced if edema is present.

CONCLUSIONS

1. Complete metabolic balance cannot be maintained by parenteral feeding and watering. The sick surgical patient should be given food and water by mouth as soon as it can be tolerated.

2. Intravenous infusions should be given slowly, preferably by the drip method except in those patients needing a rapid increase in blood volume.

3. Hypertonic solutions are more dangerous than isotonic solutions and should not be used routinely.

4. It should be recognized that too much sodium chloride may be given, even in physiologic solution, and general edema be produced in those patients having reduced serum protein as a result of starvation.

5. Continuous phlebotomy is not to be recommended since the method predisposes to thrombosis, phlebitis and embolism. Sufficient liquid can be given more safely by the interrupted injection technic.

6. The site of intravenous injection should be frequently changed to prevent vein damage and thrombosis.

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THEORETICAL AND CLINICAL ASPECTS OF MONGOLISM

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FREQUENCY

We have learned that Mongolism represents a sizable proportion of the mentally defective group, far larger than figures derived from institutions would have us believe. In a study of almost fifty thousand pediatric admissions to Washington University Dispensary among whom there were 777 mental defectives, 115 or 14.6 per cent were Mongoloids.¹ Thirty per cent of these were in the first year of life, 50 per cent in the first two years and 60 per cent in the first three years, showing how the Mongoloid vanishes from view for one reason or another as we reach the older age groups, and also how misleading it would be to attempt to form an idea of their prevalence by counting the Mongoloids in institutions. According to Diven² 50 per cent of Mongoloids have died by the age of 10 and 70 per cent have died by the age of 20; so to get an idea of the frequency of this disease a study of the very young, before the time of admission to institutions, is obviously necessary. This study of ours is a tentative effort in this direction.

From Washington University School of Medicine and the St. Louis Children's Hospital.

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The United States Bureau of the Census has estimated that there are 153 mentally defective persons per 100,000 of the population in this country. Should our figure 14.6 found in the admissions to the Washington University Dispensary be anywhere near correct, it would indicate the existence of about 28,000 Mongoloids in the United States at this time, one sixth or perhaps one fifth of them being found in institutions and the remainder, about 20,000, at large. When one considers the high death rate of infants in the first month of life, and doubtless of Mongoloids in particular when many of them have probably slipped away before being recognized and recorded, these figures may not be too high although it cannot be said that we have yet acquired a satisfactory estimate of the size of the Mongoloid group in this country.

THEORIES OF ORIGIN

Among many interesting sides of this subject is the much discussed question of its origin. Twenty-three theories have sought to explain it and several contributory factors have been proposed.

RACE

First of all we are required by usage and tradition to recall that in describing Mongolism, Langdon-Down sought to classify mental defectives according to alien racial types,³ which insofar as the matter of race is concerned, has been put aside although so late as 1903 Muir⁴ in a general review of the subject reaffirmed the belief that Mongolism does not occur outside the Caucasian race, and Crookshank⁵ so maintains in the present (3rd) edition of his book. Mongolism is however recorded in more than a score of races including the Chinese and Japanese and other of the oriental peoples; records of two of these, the Mexican¹ and the North American Indian,⁶ were contributed from our clinic. As for the Negro in whom its existence is denied by Crookshank, we have seen it in nine individuals, a report of the first three of these being made in 1925.⁷ The Jew in whom it is also denied by the same author has presented his quota of cases.¹ There is no reason therefore to suppose that Mongolism is any less frequent in one race than in another and that it is universal must be acknowledged and the relation of race to Mongolism discarded, the terms Mongol, Mongolian or Mongoloid being retained because of their convenience only. "Mongoloid" should be given preference over "Mongol" or "Mongolian" in the designation of this anomaly.¹

REVERSION

Next in line is the celebrated reversion theory of Mongolism which teaches that these individ-

uals have reverted to a propithecantropoid ancestor who perambulated the earth in the tertiary period, in the time of the lemurs and tree shrews, the predecessor of the human race. This extraordinary idea is still maintained and stoutly maintained by the scholarly Crookshank.⁵ Nor is he alone in these views; they are mentioned often enough in the literature, for example by E. Arthur Whitney.⁸ However, we note a gradual emergence from this umbrageous idea. Consider for a moment the dilution point to which we would have now arrived with practically all these individuals incapable of producing offspring since the pre-glacial period.

HEREDITY

Another explanation of Mongolism is that it is hereditary and may reappear from time to time as a true recessive unit character. This is believed by a few writers, among them Charles Herrmann⁹ who has made several valuable contributions to this subject.

A recessive unit indicates of course a genetic type which for a time had receded from view and has reappeared, not at all according to Darwin's scheme of slow adaptation to environmental influences but at once, in full and perfect form, without regard to whether it had been absent through a few generations or a million generations. And it is of course necessary for the reappearance of a recessive unit that a similar gene be provided by the opposite sex in which case Mongolism would be in line to become dominant and an endless chain of Mongoloids would spring forth. This however is not likely to occur, for although seminal emissions occur in the male and menstruation in the female, Mongoloids do not, with exceedingly rare exceptions, produce children and one may therefore be inclined to feel that some other explanation may have to be found.

THE MUTATION THEORY

There are reasons which lead us to suspect that Mongolism begins very early and that an explanation may have to be sought in the germ cell itself.¹³ Chief among these is the observation that this anomaly appears to be complete, that is, that it involves the entire body, that every organ, every structure, every cell may bear its own particular distortion and that there is here a new being with his own anatomy, his own personality and in whom an endless variety of clinical signs should present themselves.

This purely hypothetical conception of Mongolism as a complete anomaly suggests that it is of gametic origin, beginning not with fertilization but before it, during the maturation of the egg or sperm when a disturbance in the biologic order may have occurred.

After the appearance of the chromatin-bearing bodies and their arrangement along the equator of the cell, half of their chromatin is lost and two new nuclear bodies appear; in each of these a reticulum forms in which the chromatin is again increased. Thus is reached the so-called resting period when paternal and maternal elements, both in the ovum and in the spermatozoon, may be differentiated. On fusion of the two new nuclear bodies the number of chromosomes is reduced to one half their original number, this constituting the period of reduction whereby mature ovum and mature spermatozoon may each provide half the original number of chromosomes which on fertilization will restore the number characteristic of the species.

That these structures and these functions may be visited by some of the vicissitudes to which their progeny, the embryo, will be exposed, there can be little doubt. Indeed such disturbances in structure and in functioning of the chromosomes have already been observed, "accidents and irregularities in the nuclear make-up," Herbert Walter calls them.¹¹ "During the period of unpairing of homologous chromosomes," he writes, "the process may not be clean cut and complete. A piece of one chromosome may adhere to its mate thus changing its size and composition; or again, a fragment of a chromosome, during the complicated elimination performance accompanying the marriage ceremony of the germ cells may be shuffled out and lost, thus creating a deficient chromosome. Such accidents to the germ cells would be reflected in all the subsequent mitotic divisions of the cells derived therefrom and a mutation would result. Further, an examination of the nuclear structure of mutants frequently reveals chromosomal irregularities so that an unmistakable re-

lation between the two phenomena undoubtedly exists."

Again, as he states, there may be an unequal migration of the chromosomes to the poles of the germ cell during the reduction period which will result in a cell progeny having a number of chromosomes unlike the number present in the parent and producing a complete change in the succeeding generation. An example of this occurs in the Evening Primrose, *Eurothera Lamarckiana*, the chromosomes of which number fourteen, whereas in one of its mutants, *Eurothera Lata*, fifteen chromosomes are found, an eight chromosome gamete joining with a normal seven chromosome gamete because prior to the resting period the chromosomes divided unequally. In this case instead of fourteen dividing into two groups of seven each, they divided into eight and six so that when eight were fertilized with a normal germ cell containing seven, it produced the mutant fifteen, which deVries¹² called degressive because it was defective and in natural surroundings incapable of further reproduction.

I regret very much the necessity of going into all this talk about chromosomes and genes, but no other plan presents itself which shows how one's mind is carried away from heredity as a factor in Mongolism and finding in the revolutionary contribution of the great botanist deVries a possible explanation of the problem in hand. And it is important to remember that of the three types of mutations which he described it is only with the last of them, the so-called "degressive" mutation, that we may here be concerned. Whether we will actually find that the normal forty-eight chromosomes of the human nucleus are replaced in Mongolism with some other number as is here suggested is up to the cytologist to reveal. That Mongolism

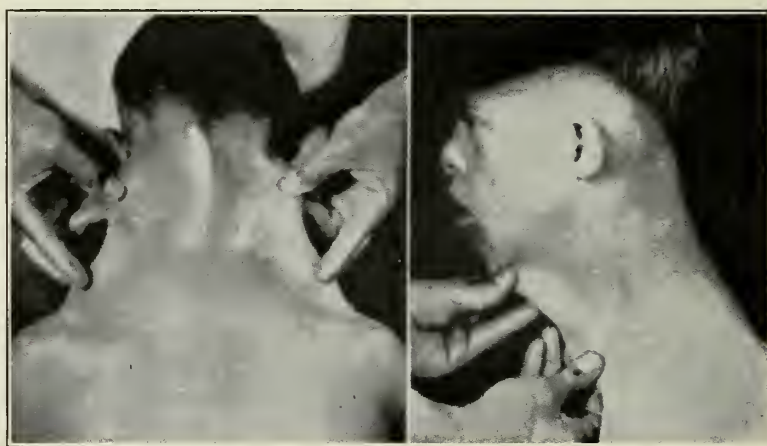


Fig. 1. Softness, elasticity and redundancy of the superficial tissues may often be detected in the neck. When present they afford a convenient and helpful sign of Mongolism. (R. H. W. M., aged 10 years.) (By permission of the American Journal of Disease of Children.)

is germinal in origin as pointed out by Halbertsma¹⁰ and by others since his contribution appeared in 1923, there can be very little doubt, and that the interference with the biologic order of growth of the ovum or sperm may best be explained on the basis of a mutation as here set forth is purely theoretical and cannot be accepted at this time as more than an indication of a new approach which may be worthy of study.

ADVANCED PARENT AGE

A fifth theory of the origin of Mongolism is the rôle of advanced parent age, of either parent and most particularly of the mother, the Mongoloid showing an uncanny preference for a mother of advanced age. Something more will be said about this item at another time.

ENDOCRINE

And then there is the endocrine theory which has made the use of thyroid and pituitary extracts very popular. We have however acquired no satisfactory evidence that Mongolism is the result of a deficiency of any gland although there is no reason to believe that because of this he is immune to disease of the endocrine system nor that glandular therapy may not on occasion produce helpful results, as has been noted in growth in height and the descent of the testes.

Because of the common use of thyroid in Mongolism, a study of the basal rates of a group of Mongoloids was undertaken last summer. Material was supplied from the St. Louis Training School through the cordial and helpful cooperation of the director of that institution, Dr. George A. Johns, who sent the children to us at the St. Louis Children's Hospital, in pairs, each week throughout most of the summer. They came in his own car, accompanied by their own attendants, special provision being made for their breakfasts after getting back to the school. Needless to say, we feel very much indebted to Dr. Johns for his interest and help and for his advice in carrying out this experiment. Basals were made on nineteen children, most of them coming in a second time for a check test. The technician, Miss Genevieve Wilbur, showed great ability in handling so difficult a situation and by dint of unusual skill and patience succeeded in several instances in getting readings which appeared to be quite satisfactory. A report of this study will be made later on when the occasion offers to do it over again, on the same children, although it may be stated now that we have little doubt that the basal rate is no lower in Mongoloids than in non-Mongoloids and that thyroid is not indicated in this disease unless evidence of thyroid deficiency is present.

SEX

Among contributory factors only one will be mentioned; namely, that the male appears to be more often the subject of Mongolism than the female and that the bearing of this fact, if it is a fact, brings the so-called X chromosome into the picture and contributes its own part to the germinal and possibly the mutation theory, this surmise being based upon the probability that an X chromosome when supplied by both parents results in a female and when contributed by the ovum alone produces a male, this sex determiner being constant in the female nucleus only. Of the 777 mental defectives seen at Washington University Dispensary and referred to above in discussing the frequency of Mongolism, 458 or 59 per cent were males and 319 or 41 per cent were females, showing a preponderance of males, as has been repeatedly observed by others in studying the relation of sex to mental deficiency; but among the 115 Mongoloids in this group of ours to which twenty-two others also collected outside of institutions may be added, bringing the number to 137, there were 83 or 62 per cent males and 54 or 39 per cent were females which is a much more emphatic figure, the ratio standing at 5.9 to 4.1 for all classes of mentally defective persons and at 6.2 to 3.9 for the Mongoloids. It seems likely, although these figures are far from conclusive, that sex may be a contributory factor in the occurrence of Mongolism.

SYPHILIS

Before leaving the theoretical side of Mongolism one should perhaps say a word about syphilis, because it still appears in papers and in the discussions of this disease, merely however to point out that the evidence is amply complete against this possibility and that such discussions should cease. And so it is with many other theories of Mongolism since the early days when English physicians ascribed it to tuberculosis and the French ascribed it to shock during pregnancy and the American



Fig. 2. The round, full labia in Mongolism. Note also the redundancy of the right thigh. (Baby L., 5 days old, seen with Dr. Park White, Jr., who courteously allowed the use of this picture.) (By permission of the American Journal of Diseases of Children.)

authority, Goddard, believed it to be the result of an overly advanced social level.

CLINICAL AND DIAGNOSTIC ITEMS

I now reluctantly leave the theoretical side of Mongolism; it is of vast interest and of vast importance, but with this introduction we may proceed to the clinical and diagnostic side of the subject and with the statement that to look at even one Mongoloid long enough is to learn a world of things about them all for they all look alike. As has often been said, they all look like brothers and sisters; nor does this resemblance stop with their physical attributes, for the mental characteristics of these individuals are often as faithfully repeated in one after the other as are their physical characteristics.

Let us touch briefly upon some of the outstanding signs of this disease. First, the height is always below normal for that individual, weight remaining within the usual range for height. At times, although not more often than with others, the Mongoloid is quite heavy. Their posture is very distinctive and often one may recognize them by it alone. The head is usually held forward as they walk along and this, with a flattened occiput, fading off into a broad, flat neck, makes a striking picture which is enhanced by their retarded locomotion and somewhat uncertain coordination for, although often active enough, Mongoloids are never agile or dextrous. A limited mentality and an almost complete lack of assertiveness combined with a much reduced muscle tone and the classical laxity of ligaments of Mongoloids doubtless account for this distinctive posture and physical behavior. There is a general roundness of the entire body; the head, face and features are round, the ears are small and round and often lopped and may be set far back and low in the neck. The arms and legs are short with small, pudgy hands and feet; the short spatulate hand with stubby thumb set far down toward the wrist and often sticking straight out, and the incurved little finger are strongly diagnostic. This peculiarity of the little finger, its incurving, although not infrequently seen in other imbecile types and even in normal persons at times, occurs in about 85 per cent of Mongoloids. The palmar creases of the little finger may be two instead of three in number and the lines of the palm may resemble the palms of quadrumanous apes, the so-called heart and head lines running horizontally across it as one.

The skin is usually rosy, at least until adolescence, soft, warm and, unlike the skin in myxedema, is normally moist and more than normally elastic; it is often overly ample, its redundancy constituting a valuable and practical and usually overlooked sign of the disease. This

is often best appreciated in the neck, the back of the neck, and is of special value in early life.¹³ Later on the skin may become dry and even scruffy which may be best appreciated on the extensor surfaces and face. A few years ago attention was drawn to another clinical sign in Mongolism having to do with redundancy or, perhaps one might better say in this instance, fullness of the skin and superficial tissues of the labia majora which, although only of corroborative value, may occasionally be of help in diagnosis.¹³ When present, which it usually is, the change in the labia is quite distinctive of Mongolism.

And of course the most distinctive of all are the Mongolian facies; the small nose with flat bridge and extended epicanthic folds, the small, narrowed palpebral apertures pointing inward and downward toward the nose, the so-called "almond eyes" of the oriental. The malar bones are prominent and usually well padded, the cheeks round, the mouth usually small and rounded with full and usually red lips. The chin is small and round and seldom prognathic. The tongue often lolls from the mouth and is usually provided with more or less deep rugae which the French have aptly called "scrotal," a peculiarity not present at birth and according to some authorities the result of tongue sucking and the constant extrusion of the tongue from the mouth. To others, and this would seem the more likely explanation, it represents but one of the endless intrinsic variations of Mongolism. The teeth, which have come in late and almost invariably irregularly, commonly retain a bad position, decay easily and contribute their share to the upper respiratory infections so often exhibited and so likely to be a continuous performance in these persons; the denture is usually narrowed and the palate vaulted. The circumference of the head is always below normal, chiefly at the expense of the antero-posterior diameter, giving together the classical microbrachycephaly of Mongolism. The cephalic index is always above 80.

With a brain that is always below normal in size and weight and always deficient in the number and depth of its convolutions¹⁴ these imbeciles never exceed an intelligence quotient of sixty. As babies they always walk late, usually not before the second, third or fourth year and everything is late in proportion; they are quiet "good" children and often show a gayety and spontaneity all their own. They are likeable and pleasant and readily amenable, are almost always fond of music and often amazingly imitative and possess an unexpectedly sound sense of direction because of which they seldom or never stray away or get lost. They are sensitive, their feelings very easily hurt, they are

affectionate and appreciative or, perhaps one might better say, responsive, but they lack entirely the creative attributes and unfortunately for them are very easily abused.

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SURGICAL TREATMENT OF VESICOCELE, RECTOCELE AND UTERINE PROLAPSE

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An understanding of the repair of cystocele, rectocele and uterine prolapse is based upon a comprehensive knowledge of the anatomy of the pelvic diaphragm and of the defects necessary for the development of these conditions.

The female pelvic structures are largely maintained in their normal position by the supporting muscular structures composed principally of the levator ani muscle. This muscle spreads out in fan shape formation to form the muscular pelvic diaphragm. The fibers radiate bilaterally from their site of origin at the inferior internal surface of the ramus of the pubis, the obturator fascia and the inner surface of the spine of the ischium, and converge toward the midline uniting in a median raphe, thereby partially supporting the bladder, encircling the uterus and rectum and ultimately uniting in a handle like fashion with the anococcygeal ligament and to the side of the coccyx. The coccygeus muscles and the pyriformis muscles complete the pelvic diaphragm. In addition a more dense support is afforded through the firm and effective pelvic fascia which is similar to the fascia abdominalis, so effective in maintaining abdominal tone.

Muscle, to be effective, must have fascial protection for support and here as elsewhere this provision is well provided for. This fascia is definite and covers the entire pelvic floor and the pelvic viscera, forming over these organs a fascial sheath capable of distention and yet supportive. It is called the visceral fascia. At points where resistance and support is necessary the fascia thickens to meet the requirements. This is noticeably so around the hiatus uteri where the fascia is dense and strong between the uterus and bladder and between the rectum and uterus, called the uterovesical fascia and recto-uterine fascia respectively. In addition this fascia goes forward under the floor of the bladder and joins with the fascia of the anterior vaginal wall to form the vesicovaginal fascia, a strong supportive membrane. In like manner, the pelvic fascia joins the posterior vaginal fascia to form the rectovaginal fascia, a supporting structure of the rectum. The pelvic fascia at the ligamentous attachments of the uterus thicken and spread out over these structures forming added scaffolding support for the maintenance of the normal uterine position. The uterosacral ligaments, the broad and round ligaments and the lateral uterovesical ligaments are definitely strengthened. With such definite supportive qualities as provided by the pelvic fascia, rectal, vesical or uterine descent cannot occur unless some defect develops in one or all of these retaining structures, and a defect in one element of this frame work does not result in the descent of the uninvolved structure.

Cystocele comprises the most frequent displacement or hernia for, in fact, a cystocele is a herniation of the bladder through the separated vesicovaginal fascia and results from some severance of continuity of this supporting bladder fascia. The usual cause is trauma and injury from labor. An injury of the anterior vaginal fascia, without levator separation and fascial injury of the posterior vaginal floor, does not result in rectocele and conversely an injury of the latter, without damage to the bladder floor, does not produce a vesicocele. However, an injury to both of these structures ultimately produces a downward descent of the uterus when it is in the posterior or retroverted state. A retroversion is essential to uterine prolapse of marked degree because the uterus must be parallel to the vaginal outlet for intra-abdominal pressure to be most effective. When in the anterior position the uterus is pressed more firmly against the bladder and increases the anteposition, often driving the cervix into the vagina and producing an elongated cervix and an acute antelexion. When the uterus is retroverted the intra-abdominal pressure drives the intestines into the uterovesical space and di-

rects the uterus into the same axis as the vaginal outlet.

The method of treatment is concerned with restoration of the visceral structures to their normal position and a repair of the defect which permitted their displacement. The cure of a vesicocele necessitates a replacement of the bladder and a repair of the vesicovaginal fascia accompanied by any correction that may be necessary relative to an elongated cervix or malposition of the uterus. The same principle applies to a rectocele. There must be a repair of the rectovaginal fascia and an opposition of the levator ani muscles. A simple perineorrhaphy will not suffice to correct the condition.

The treatment of uterine prolapse depends upon the degree of prolapse, the age of the patient and the marital state. Obviously a prolapse of slight or moderate degree in a young woman should be treated conservatively by a repair of vesicocele and rectocele and possible amputation of the cervix if extremely elongated and a suspension of the uterus in the anterior position by one of the accepted round ligament shortening procedures. When the patient is in the menopause age and further pregnancies are not a problem, the uterus may be placed in the interposition state by amputation of an elongated cervix, severance and ligation of the tubes to prevent a possible future conception and anchoring the uterus in front of the bladder under the symphysis, followed by a repair of the vesicocele and reconstruction of the perineal floor. When the uterus is large and boggy this procedure will not give permanent results unless a large portion of the anterior wall is resected, removing the entire endometrium and reducing the uterus to a subinvolved state by suture of the edges of the excised portion. A large boggy uterus in the interposition state will ultimately descend broadside into the vagina and appear at the vaginal outlet, producing symptoms of bladder retention, incontinence and vaginal protrusion. Knowing that a retroverted uterus must be corrected in the cure of uterine prolapse and that extreme ante flexion with an obliteration of the vesico-uterine space is essential to the abolishment of the effects of intra-abdominal pressure, the operation of Halban and Tandler, which preserves the uterus and does not eliminate subsequent pregnancies, is worthy of considerable merit. After the first step of the colporrhaphy operation has been done and the bladder stripped from the anterior surface of the uterus, the cervix is amputated if necessary, as indicated by an elongated cervix, a nodular eroded cervix or a uterine cavity measuring more than 8 cm.; the vesico-uterine peritoneum is opened and the fundus of the uterus is brought down into the

vagina and the vesico-uterine peritoneum is pulled down and the peritoneal surface of the bladder, half way up, is sutured to the posterior surface of the fundus of the uterus which is then replaced in the abdomen and the bladder sutured to the anterior uterine wall in several places to insure complete obliteration of the vesico-uterine space. The remainder of the operation consists in repair of the cystocele in the usual manner, correcting any incontinence by a sutured flap of vesico-vaginal fascia tightly across under the urethra at the urethra bladder junction, covering of the amputated cervix by vaginal mucous membrane and a repair of the perineal floor.

An operation highly advisable and used by the writer in a number of cases in women with the third and fourth degree prolapse, past child bearing age, is the Mayo vaginal hysterectomy. I am indebted to Dr. James Masson of the Mayo Clinic and to Dr. John Outland of Kansas City, Missouri, for their kindness to me in demonstrating their excellent technic and the results in their cases. The operation consists of an incision from below the urethral meatus to the cervix, a blunt dissection of the bladder laterally and a complete freeing of the bladder from the uterus followed by opening of the vesico-uterine peritoneum. The uterus is then delivered into the vagina and the cervix is pushed onto the posterior vaginal floor. The broad ligaments are clamped and the uterus removed, cutting well away from the clamp and if need be cutting into the side of the uterus. The posterior cervical mucosa is incised, the uterosacral ligaments are clamped and the uterus is removed. The broad ligament clamps are approximated after the bladder has been pushed up into the abdominal cavity behind the broad ligaments. The approximated broad ligaments are united by a continuous mattress suture and the clamps removed. The bladder now rests behind the sutured broad ligaments which are in turn anchored to the pubic fascia on each side of the urethra to prevent their ultimate descent posteriorly and the possible escape of the bladder through the aperture. The cul-de-sac is obliterated by suturing the uterosacral ligaments and peritoneum to the inferior portion of the broad ligaments. The cystocele is repaired in the usual manner and the vaginal vault closed. With this there must be an adequate repair of the ever present rectocele. This operation is not long or difficult and it gives excellent results. The only bad feature is that sometimes there is more shortening of the vagina than is anticipated.

The repair of a vaginal prolapse with cystocele and rectocele when the uterus has been previously removed is a difficult procedure.

When possible the vaginal vault should be anchored to the anterior abdominal wall, preferably the fascia, after a repair of the vesicocele and rectocele. The possibility of this being accomplished can usually be determined by the freedom of motion obtained by traction on the vaginal vault. Otherwise it is sometimes necessary to do a complete closure of the perineum leaving only a slightly exposed mucosa around the urethra or the complete ablation of the vagina by excision of the vaginal mucosa.

Fixation of the uterus to the abdominal wall, or a conical resection of the uterus down to the internal os and the lateral flaps sutured to the abdominal fascia after being passed between the fascia and rectus muscle, or where the lateral flaps are brought up through the abdominal fascia and sutured over the fascia in the midline are satisfactory if preceded by repair of the anterior and the posterior vaginal fascia when vesicocele or rectocele are present.

Again it may be advisable to amputate the uterus at the site of the internal os and fix the stump to the abdominal wall. When the uterus per se is simply fixed to the abdominal fascia the result is usually not lasting as subsequent strain often results in the uterus finally being suspended only by adhesive strings. Abdominal fixation alone only takes up the vaginal slack and is not serviceable without preliminary repair of the bladder and rectal herniation.

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Interest in the factors of female fertility has led to a study of the endometrium, for such a study John Rock and Marshall K. Bartlett, Brookline, Mass. (Journal A. M. A., June 12, 1937), have used biopsies of the endometrium obtained by the small suction curet. Of the 900 biopsies made, only 457 biopsies from 329 patients are discussed. Two phases of endometrial development during the menstrual cycle are cytologically distinguishable: the proliferative, attributable to estrogen, which shows well marked differences between its earlier stage and its subsequent development; the second, the secretory phase, attributable to both estrogen and progesterin. During this phase, mutations in the glands and their epithelium in the stroma and its cells are characteristic of successive days and make possible a day by day appraisal of corpus luteum activity. Such dating of the endometrium on an arbitrary scale as for a twenty-seven day cycle with ovulation on the fourteenth day is useful for determination of ovulation, for diagnosis in menstrual disturbances and for evaluation of endocrine therapeutics. Amenorrhea is usually due to deficient follicular development but may be present even though a proliferative endometrium shows a high degree of follicle activity and rarely in the presence of cyclic ovulation, as in subprimate mammals. In the absence of pregnancy there is never a persistent corpus luteum. Metrorrhagia, too, may occur with any degree of endometrial development and therefore in spite of ovulation and corpus luteum formation. Biopsy studies show that in human beings the follicle phase is variable within extremely wide limits.

IRRIGATION OF THE LUNGS FOR MORBID CONDITIONS ARISING THEREIN

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I have treated morbid conditions of the lungs by irrigation with silver protein solutions over a period of many years and have found the measure applicable generally and in many instances it is effective in subacute and chronic abscess, in limited suppuration of the lung, in bronchiectasis and in all stages of catarrhal or purulent bronchitis whether limited or affecting large areas. Its use has been highly beneficial in the bronchitides following the acute infectious or eruptive diseases, especially in la grippe and in the bronchitis popularly called "cold on the chest." In the latter affliction it is of immediate positive value; marked symptomatic relief is afforded almost at once. It finds a place in asthmatic bronchitis, in initial pulmonary tuberculosis (primary focus), and in persistent localized pneumonitis as a "hangover" of influenza.

This procedure of inserting medication into the lungs was contrived especially to treat the several disorders above named when situated in the middle and upper lobes; likewise in the upper anterior and posterior regions of the lungs. The treatment may be used in these maladies when confined within the base or lower lobes.

In abscess and in bronchiectasis irrigation is most efficacious, as may be expected, in the smaller and less complicated types. But irrigation may be administered in all types of abscesses where they communicate with a bronchus or bronchiole regardless of their origin or source or whether single or multiple. It will not benefit abscess caused by the presence of a foreign body or when contingent upon a neoplasm of the lung. Dr. Louis H. Clerf¹ reported "that 60 per cent of lung abscesses present a history of operations about the throat and mouth; more than 50 per cent involved the upper lobes." Abscess in the upper and middle lobes, as previously asserted, will particularly respond to treatment by irrigation and should show improvement after several irrigations.

Small tuberculous abscesses that communicate with a bronchus are often improved by persistent irrigation by counteracting the non-specific inflammatory process through the action of the silver ingredient, and by repressing the excessive secretion and exosmosis, both of which result from the prevailing congestion. Moreover, improvement of the local condition may be anticipated from irrigation by curtailing the number of coughing spells, thus affording

prolonged reprieve to the lung. The solution itself has perhaps little, if any, destructive effect on the specific bacilli or infection.

In the early or catarrhal stage of pulmonary tuberculosis (before cavity formation) irrigation is proposed as an adjunct to the regular form of treatment, or rather as a measure to be investigated or tried. In incipient tuberculosis, primary type, there almost always exists a secondary inflammation in the part affected brought on by mixed infection which occurred perhaps coincidentally with, or had taken place before, the specific implantation. The local irritation and discomfort, when produced by the nonspecific inflammation, will be mitigated promptly by irrigation.

Also in asthma and in asthma with bronchitis, whether or not the latter is an incidental accompaniment of the former or regarded as contributory to the poesis, irrigation will prove valuable. Irrigation aims to arrest the inflammatory process and in turn lessens the exudation and edema and achieves the end through the astringent property of the silver constituents acting on the blood vessels. It is important that the solution bathes or comes in contact with all the surfaces of the congested bronchial area. Whether irrigation possesses the *vis ertiae* to do more in bronchial asthma than merely allay the prevalent inflammation, I will not assume to say. I have been engaged in trying out irrigation on asthmatic cases and I am not quite ready to render a report on the results. The beneficial effect on the bronchitis is apparent.

In an obstinate case of empyema that had persisted many months with pus escaping via the lungs, I succeeded in arresting the disease in a few days by employing irrigation, as was evidenced by complete cessation of the discharge. The solution obviously had found its way through the pleurobronchial fistula and invaded the abscess cavity between the pleural laminae. The pus that escaped from the lungs in twenty-four hours amounted to about one tablespoonful. The same treatment was subsequently employed when fresh empyemes redeveloped, and these were discharged through the lung, and the same beneficial results followed; namely, the cough, fever and discharge promptly subsided each time.

The question has been asked: "How does irrigation benefit or tend to overcome or repair the simple ordinary abscess and bronchiectasis?" The answer I give is by virtue of the astringent, bactericidal and detergent properties contained in the solution. With the patient in the correct position, the solution, if properly introduced, will enter the pus cavities or bronchiectatic dilations.

The solution further acts to moisten or liquefy

the mucopurulent material and in consequence the lungs are better able to remove it. The medicated solution gaining contact with the diseased surfaces should excite normal cell proliferation, where possible, and induce fibrous development. The latter tissue is known to contract and, in doing so, will further narrow the spaces. After several successfully performed infusions the puriform matter will show improvement in character and become less tenacious. In cases where large quantities of thick mucus predominates, one half grain of sodium bicarbonate freshly added to one hundred parts of the argyrol solution will assist liquefaction. In the event that paranasal sinus infection exists or is concerned as a contributory factor of the pulmonary disorder, it follows without saying that this infection should receive proper attention.

In an active localized streptococcus infection of the upper lobe, I administered 5 cc. of a 5 per cent solution of argyrol three times in one day and once on the following day. The infection terminated rapidly in recovery. This concentration had the effect of destroying the superficial epithelial layer of the larynx and trachea. The devitalized epithelium desquamated in narrow shreds but no ascertainable permanent injury resulted.

I have witnessed many acute hemorrhages of the lungs following body injuries and from tuberculosis but I have never employed irrigation as a means to arrest bleeding. I would therefore recommend its employment in hemorrhages of the lungs arising from any cause except hemophilia. I would advise the injection of about 8 cc. of a 5 per cent solution of argyrol and direct the medicine, as will be described later, to the site or region of the bleeding. Union of the two fluids might result in a clot.

It may be noticed that the pain or aches and cough that are frequently experienced in pulmonary abscess and inflammation of the bronchioles will quickly be relieved following irrigation. The operator will be made aware from the sudden relief thus obtained whether or not the solution has entered the abscess cavity or affected area. Should relief fail the irrigation may be repeated at once or a larger quantity may be used at a subsequent sitting.

The solution I commonly use or prefer in most cases consists of argyrol, or silver nucleinate, dissolved in distilled water or normal salt solution in the proportion varying in strength of from one part of the silver in four hundred parts of the solvent to one part of the former in one hundred parts of the latter, in other words from .25 to 1 per cent in silver content. A greater concentration, however, may be administered with safety. Where a very large quan-

tity of the solution is injected the strength may be more attenuated. When the salt solution is used as a menstruum, the solution should be made up fresh each time. I have infused normal salt solution many times with happy results. I have introduced a few other non-irritating organic silver solutions in different strengths with apparently good results.

The quantity of the solution that may be administered will depend, like that of the silver component, upon the local requirement and condition as determined by the character or entity of the lesions, their duration and extent, and the number of irrigations sought to be given, and may therefore vary in amount running as low as from 5 cc. to 30 cc. or more for one lung or double that quantity for both. The larger quantity is easily retained by the lungs. Where a large cavity exists or a large area, the amount administered may be larger. Little danger need to be expected from over abundance and no contraindications exist against its reasonable use. It is indeed surprising what small quantity will serve the purpose. I have introduced from 5 to 10 cc. of the solution and frequently more containing silver vitellin in .75 per cent strength two or three times weekly in refractory cases over a period of from twenty-four to thirty-six months with curative results. No harmful effects of any kind and no evidence of argyria have developed during the lapse of many years. How frequently irrigation may be given will depend altogether upon the entity and general character of the lesions and the progressive traits of the individual case. For example, a simple acute bronchitis or "cold on the chest" may be irrigated with the weaker solution once or twice daily. General and local improvement should be experienced in a few minutes. Mild chronic cases, including abscesses, should receive two or three treatments a week or oftener if deemed necessary. Better results follow frequent administration.

I have introduced 8 cc. of a 20 per cent aqueous solution of argyrol in the upper left lobe in expecting to obtain a skiagraph of the viscus. The experiment proved negative but the curative influence upon the stubborn bronchitis was short of marvelous. The patient suffered some ill effects from this for two or three days.

The administration of the solution is made or conducted by means of an ordinary laryngeal syringe (metal, or glass and metal) holding from 5 to 10 cc. or more. A laryngeal mirror aided by reflected light from a forehead mirror may be used in directing the cannula of the injector, the tongue being held out by the patient. The common metal tongue depressor assisted by the head mirror alone will answer the pur-

pose equally well. I introduce the end of the cannula to just above the chords or pass it through the rima glottidis into the larynx. During gentle breathing the chords are widely separated. When the cannula is in position I empty the entire contents of the syringe, requiring about eight seconds. When properly and cautiously performed straining, gagging, coughing or retching need not be occasioned. This fact is of prime importance when tuberculous lesions exist in the lungs. Many intelligent children take to the treatment readily.

In introducing the solution designed for the lower lobes, the patient is seated on a reclining chair or table and instructed to lean a trifle toward the diseased side while the solution is being introduced. If both lower lobes are to be irrigated at one sitting, the patient is inclined first to one side and then to the other. This will insure each lobe receiving the desired amount. As soon as the solution is introduced, in the case of bronchitis or bronchiectasis, the patient is quickly inclined backward and held in the horizontal plane, or the body may be tilted slightly below the horizontal plane. The patient is now requested to cough twice or three times quite vigorously. The coughing will act as a siphon and draw the solution from the periphery of the lung back into the large bronchi and bronchioles and permit the medicine again to diffuse into the outer or now inferior air capillaries of the lungs. In two or three minutes the person is directed to turn over on the abdomen without elevating the shoulders and to cough once or twice more. After lying in the prone position for three or four minutes the individual is asked to turn on his back, thus completing one revolution. The patient is now brought to a sitting attitude and dismissed. The turning of the patient is assisted by guiding the ankles and feet. The purpose of rotation is to cause the medicine to be brought in contact with all surfaces of the bronchioles, at the same time allow the solution to flow from the smaller bronchi of the upper into the lower section of the lungs. In small abscesses in the lower lobes turning is not so important and coughing need not be requested.

When introducing the solution into the upper and middle lobes, the patient is made to lie in an almost horizontal position (at 165°) on the affected side with the head and shoulder slightly raised above the plane of the body. In that attitude the medicine will flow directly into the bronchus leading to the middle and upper lobes. As speedily as convenient following the introduction of the solution, the patient is turned either on his back or forepart, depending upon the location of the abscess. In cases of bronchitis or bronchiectasis, both positions, back and

front, are requisite. On rare occasions patients may need the solution introduced by means of a flexible urethral catheter. In such instances the patient is seated in an upright position and the catheter is inserted into the windpipe to the bifurcation of the trachea. With the tip engaging the orifice of the proper bronchus, the patient is thrown backward to a nearly horizontal plane, and, while the catheter is held in place, the patient is turned on the diseased side as described previously. The syringe is now emptied of its contents into the stem of the catheter. That remaining in the catheter is expelled by an additional action of the empty syringe. If the apex of the lung is to receive medication, the patient's head and shoulders are lowered to point downward and a few coughs are emitted by the patient. The catheter is removed as soon as the solution is injected.

When the catheter is employed it is imperative that the pharynx, larynx and trachea be anesthetized before attempting to insert it. Disregard of this precaution will cause strangling, retching, coughing and sometimes vomiting. It is important to note that in the preparation for irrigation, ordinarily local anesthesia need not be used. If desired radio-opaque oil can be introduced into the middle and upper lobes by the above described technic.

Furthermore, irrigation intended for the middle and upper lobes may be accomplished in a third way, namely, by placing the patient on a reclining chair with the body leaning to one side and administer the solution as outlined above, then quickly recline the patient backward until the head and shoulders are carried below the horizontal line. If enough solution be injected and the technic carried out as set forth above, the entire lung, both lobes, can be irrigated in one attempt.

The best time to give irrigation is in the mornings or after the patient has freed his lungs as much as possible of the accumulated matter. The period required for making a successful irrigation need not exceed ten minutes but it is advisable in most cases that the time be fifteen or twenty minutes. Medium sized abscesses and bronchiectases in any region of the lung can be handled by madefaction.

In addition to the several remedies previously described, Bledoes-Fisher's solution, diluted or undiluted, calcium chloride .1 per cent or stronger or normal salt solution may be employed. A sufficient quantity of the above fluids is infused to fill or partly fill the cavity. This is allowed to remain for ten or fifteen minutes, then the patient is placed in the position that best favors spontaneous emptying. Upon several forcible coughings, part of the mobile contents will escape. No harm will result if it

be retained. Following this, irrigation with the silver solution may be given.

Large abscesses and bronchiectases, when confined to the lower lobes, are better treated by the method known as "washing out the lungs." For description of the technic and general information concerning the method and its uses, the reader is referred to article written by Dr. Howard Stitt, the originator of the system.

My sole aim in this article has been to point out the uses of and the benefits to be derived from irrigation and to relate, as briefly as possible, the separate steps in the technic as practiced by me over a period of a decade and a half. Many physicians who have witnessed irrigation given to patients and have observed the immediate effect on the disease have thought well of it. Irrigation is not proposed as a cure-all, nor is it advocated to supplant other methods of therapy that have proved curative and useful in these diseases. The treatment is easy to administer; it has no contraindications, and may be employed in conjunction with other recognized measures of treatment.

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SPECIAL ARTICLE

A PEDAGOGUE LOOKS AT THE DOCTORS

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I appreciate quite thoroughly the reason for my appearing on this program this morning. You are trying to be, and I appreciate the fact that you are being, gracious to your host. I of course do not presume to come with a learned paper to a group of physicians.

I have nothing to tell the doctors but the truth. One of the primary purposes of my telling you the truth is to welcome you gentlemen and the ladies of the Auxiliary and it is indeed a pleasure to me, as a representative of the college and of Cape Girardeau, to extend that welcome. It is a pleasure to be your hosts for I do not know of a group anywhere that we would prefer to entertain. If I were the secretary of the Chamber of Commerce there are certain things I would say. I would tell you that Cape Girardeau is the most rapidly growing city in the

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State of Missouri and probably the most rapidly growing in the country; that we are building at the rate of one hundred fine residences every year, that we are an up-and-coming city in an up-and-coming section of the state; that we are becoming the convention city in the Mississippi Valley, and all that sort of thing. But I am not the secretary of the Chamber of Commerce and I will not say those things. I should, however, like to say, since you are not only the guests of Cape Girardeau but particularly the guests of one of the state institutions, the Southeast Missouri State Teachers College, that we feel we have one of the important educational institutions of the state, an institution that is serving twenty-seven counties in a particular way. I believe that the State of Missouri gets as good a return on the money invested here as from any other money it spends. I believe that thoroughly. There is no rivalry between the higher educational institutions in Missouri. The University of Missouri and all the teachers colleges belong to one system and we sit around one table and talk about our problems, and those who represent these institutions are friends and have a perfect understanding. Our per capita cost at the teachers colleges is quite low, and for certain very good reasons. We are serving here more than one thousand students every year from September to June. This year we have an enrollment of 1023 and we believe we are giving them good advantages at low cost. The interesting thing about it is that at least from 65 to 70 per cent of these young people would not be in college anywhere if it were not for these regional institutions. That is the type of thing we are trying to do. Primarily, we are dedicated to the task of training public school teachers, but we give prevocational training also. The boys and girls who are interested in professions other than teaching can take their prevocational work here. We have a premedical group of from thirty-five to forty members.

But I am to speak on the subject, "A Pedagogue Looks at the Doctors." I took as a clue for the title which I have phrased for your program the titles of two books which appeared some years ago written by a distinguished member of your profession, Dr. Joseph Collins, of New York. He is not only a scientist but a literary man. His first book in the literary field was entitled—"The Doctor Looks at Biography," and in the preparation of this volume he read more than one hundred biographies. A little later he wrote a book as his avocation entitled, "The Doctor Looks at Love and Life," a very interesting book. There is one chapter out of which one gets his money's worth, the chapter entitled "Adults and Juveniles," in which he becomes somewhat of a joker and writes about a

commodity of which there is so much in the world today, adult juvenility.

I could not, of course, say anything worth while to you about appendicitis or cancer. All I know about appendicitis is that it makes a big inroad on our hospital fund every year. We have a doctor and a nurse who are apparently good at ferreting out these appendicitis cases and I do not know if it is because we overwork our students or what it is. I do not know exactly why appendicitis is on the increase, but we appreciate the fact around here that it is on the increase. Sometimes we have three or four at a time in the hospital. We have quit inquiring "What is the matter?"; now we ask "When are you going to operate for appendicitis?" That is my sole contribution to the subject of appendicitis.

But when we come to the subject printed on the program, I should say that when the pedagogue looks at modern medicine and modern physicians he certainly becomes aware of the remarkable progress that the sciences, particularly medical science, have made, how far you have gone. I am not here merely to praise you because I am host and you are guests, but there are a good many patent signs that suggest that modern medicine has gone a long way indeed. I am not altogether familiar with the history of medicine, as you are, but I recall that we do not have to go far back as the history of the world goes to a time when there was a good deal of chicanery and bloodletting was the panacea for all the ills of the body, or when priests performed surgical operations of all sorts. A little later the church decided it was not altogether a good thing for the priests to be performing major surgical operations because now and then not all of these operations were successful, now and then a patient died, and it was a bad thing for the church because a good many among the primitive peoples might make it unpleasant. That was bad for the church so the priests were forbidden to perform surgical operations. That opened up the business for the laity and the barbers rushed in and they had barber surgeons. Every barber pole in the United States is an interesting reminder of the fact that barbers used to be surgeons. A man at a single sitting could get a head shave and a bloodletting, and at a reasonable fee. The barber was very popular for a long time after the surgeons began to be differentiated from barbers. The barbers were the main bloodletters for the next two centuries because their fees were lower than the surgeons'. They are still lower. I was interested some time ago in a suggestion as to the beginning of the idea of bloodletting for the cure of anything that ails the human body. Pliny tells how man first got the idea, and his statement suggests what can get into books, and what

ideas people back in the old days had. Pliny tells us that bloodletting was discovered by Hippocrates—black bloodletting. When conditions were found that indicated bloodletting all they had to do was to find a sharp root and tear an artery and let out as much blood as they thought was necessary to relieve the condition; then they stopped the wound with clay and the savage went back into his hovel. That influence continued even down to the days of George Washington, the Father of our Country, for history records that George Washington died prematurely on account of the ignorance of his surgeon who kept giving him this panacea of bloodletting when probably the thing he needed was a blood transfusion. And so the story runs when we go into history, causing us to see what progress has been made.

You men really belong to the most dignified, the most ethical, the most learned profession in our country, perhaps, and when we pedagogues look at doctors we wish we might take several leaves out of your notebooks. You have all the earmarks of belonging to a profession. I do not mean that every individual belonging to your group bears across his brow the marks of his profession; I speak in general terms of course. You have a code of ethics that is excellent and that is widely practiced. The National Education Association has a truly marvelous code of ethics, but not 50 per cent of the teachers in the schools have ever heard that the N. E. A. has a code of ethics for the teaching profession. There are about one million teachers in America and about three fourths of the one million regard themselves as belonging to a professional group. So we are still in the transitional stage. We are trying to put this business of teaching on a professional basis but we are a long, long way from it. It is not a profession, it is a procession. The annual turnover is $33\frac{1}{3}$ per cent, and every year there go into the public schools hundreds and thousands of little boys and girls who are half-grown and uneducated, to teach your children. They do not know anything about the profession of teaching; they do not know the earmarks of the profession. That is the problem we must overcome in my business if we are ever to professionalize it.

Your business is based on a realistic scientific basis. Some of the other so-called professions are not quite so based. The popular attitude toward truth has stood in the way of scientific and professional development. What would be the status of the development of the medical profession today if science in general had taken the popular attitude toward truth? Its adherents would still be out in the woods stewing up leaves and using them as a panacea for ills they were unable to diagnose. That is where medicine would be had it taken the popular attitude

toward truth. So the pedagogue looks at the doctors with great admiration for this realistic attitude you assume toward all problems. I am not a barber, I am not associated with a diagnostician, but I am thoroughly convinced that the difficulty today with the world in its muddled state is that we have not been successful, and nobody is very much interested, in putting what we call the social sciences on a realistic basis. Any junior high school boy in America knows more about the physical sciences than did Plato or Aristotle, although they were primarily scientists rather than philosophers. And the reason the high school boy knows more is that there is so much more to know. That is a quite patent fact. But I doubt if any statesman in the world today knows more about social control than did Plato and Aristotle, and many do not know what Plato and Aristotle said about it. We are still clinging to our prejudices, we are still following our social, governmental, political and other prejudices that we have inherited, and we absolutely are not willing and find it impossible on account of our prejudices to put these things on a realistic basis and let the truth lead where it will, as we have done in chemistry, physics, anatomy and physiology. If I have an idea to suggest this morning it is this: That further progress in the world of social control really waits on the ability of those who are in authority, those who have the responsibility, to induce the people to put aside their prejudices and be willing to let truth lead where it may, to employ the controls that are necessary even though they may not be inherited or have not been believed in by our forefathers. There is the difficulty as I see it. A better world really waits on this, and if the social scientists could have an unhurried and unbiased discussion with the physical scientists we would have the solution of many of our vexing problems of today.

I have in my hand a volume that came from my library and from which I meant to give you some quotations. I am sure you would be interested in it—"The Quacks of Old London." I meant to quote from one John Wesley, an Oxford graduate, not trained particularly in the sciences, and when we see what he had to say about diagnosis and cures it makes us a bit egotistical to see how far we have come.

It is a pleasure for this teacher training institution of Cape Girardeau to have as our guests during these three days you doctors and the people with you. We know you will make a most vital and important contribution to the business of bringing about a better world and that is what we are interested in, a more humane world, a world as free as possible from suffering and all the ills to which mankind is heir. I am very pleased to have had the opportunity to appear before you.

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JULY, 1937

EDITORIALS

ATLANTIC CITY SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The 1937 Atlantic City Session of the American Medical Association surpassed any previous session in attendance and probably also in business handled by the House of Delegates. No previous session has surpassed the number and value of scientific presentations and exhibits. Fellows in attendance numbered 9764; guests 7192; students, interns, technicians and nurses 9028, and exhibitors 1500 making a total of 27,484 in attendance at the session. One hundred nine attended from Missouri. The Missouri State Medical Association was represented by Drs. A. R. McComas, Sturgeon; W. H. Breuer, St. James; W. M. West, Monett; Carl F. Vohs, St. Louis, and M. Pinson Neal, Columbia. Dr. E. H. Skinner, Kansas City, was a delegate to the Section on Radiology.

So many matters were brought before the House of Delegates that extra sessions were necessary.

By the adoption of the report of the Reference Committee on Reapportionment, Missouri lost one Delegate. The By-Laws specifically provide that the membership of the House of Delegates shall not exceed 175 and through growth of membership it was necessary to base the allotment of delegates on each 825 members instead of 775, the former basis.

The resolution recommending the establishment of a council on medical ethics and economics which was introduced by the Missouri Delegates as instructed at the Cape Girardeau Session (page 261, this issue) was referred to the Board of Trustees who suggested that if the changes outlined are desired suitable amendments to the Constitution and By-Laws should be introduced. The purpose of this resolution was essentially covered, however, by an amendment to the By-Laws, which was introduced by

Dr. George E. Follansbee, Chairman of the Judicial Council. The amendment is to Chapter IX, Section 1, adding the following paragraph:

The Judicial Council shall have authority in its discretion from time to time to request the President to appoint investigating juries to which it may refer complaints or evidence of unethical conduct which in its judgment is of greater than local concern. Such investigating juries, if probable cause for action be shown, shall report with formal charges to the President, who, under Chapter V, Section 1, of the By-Laws, shall appoint a Prosecutor, who, in the name and on behalf of the American Medical Association, shall prosecute the charges against the accused before the Judicial Council. The Council shall have the power to acquit, admonish, suspend or expel the accused.

A resolution embodying drastic changes in medical practice, introduced by Dr. Samuel J. Kopetzky, New York, evoked much discussion and resulted in the House reaffirming willingness of the American Medical Association on direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation together with any facilities of the American Medical Association. The stand of the American Medical Association in regard to a National Department of Health was reiterated as being opposed to health activities being subservient to any other departmental interests. Because of the scope covered by these resolutions the resolutions and the report of the Reference Committee on Executive Session, to which the resolutions were referred, are printed in full on page 242 of this issue. United States Senator J. Hamilton Lewis of Illinois appeared before the House on Thursday morning with a discussion on pending Social Security Administration activities. His address appeared in the June 26 issue of the *Journal* of the American Medical Association.

Adoption of the report of the Committee on Contraception places on various councils the responsibility for the examination of products used in contraception, recognizes the necessity for teaching scientific aspects of fertility and sterility, recommends that physicians inform themselves of their legal rights and responsibilities in relation to prevention of conception and suggests that all such practice be in regularly licensed clinics under medical control. The recommendations of the committee and the report of the Reference Committee on Executive Session appear on page 244 of this issue.

The Reference Committee to which the report was referred recommended that the Committee to Study Contraceptive Practices and Related Problems be not discharged at the present time but that its existence be continued for the purpose of supplying any assistance which it may be called on to render.

A resolution was passed recommending a dis-

tinguished service medal with citation to be presented each year to a physician who has rendered outstanding service in the advancement of medicine.

The House of Delegates decided to select the place of meeting three years in advance, principally to avoid conflicts in meeting dates because the session has grown so large that few cities can accommodate the session and fewer cities could handle the American Medical Association session and at the same time entertain the meeting of any other convention.

The Reference Committee on Reports of Officers termed the address of the President an excellent discussion of the present status of medicine in this period of social upheaval. It recommended a careful study by all physicians of eleven propositions stated in the address. The committee felt that some of these propositions are problems for local communities and that the acceptance of government subsidies involves such basic principles that it should be considered most carefully. The committee felt that care should be taken to safeguard a great group of the profession who have contributed so much to its progress, namely, the radiologists and clinical pathologists. The eleven propositions follow:

1. That every practitioner believes that the proved indigent is entitled to medical services free of all charges and that the cost of this service should be paid by taxes levied on the general population.

2. The principle that indigence is a local problem and should be handled in the area in which it arises.

3. The extension of medical services to the indigents in their homes and the doctors' offices with remuneration to the physicians on a capitation basis under the direction of the county medical society, all free services to indigents to be rendered by the physicians or outpatient department of the hospital within the geographic or regional zone in which the indigent resides.

4. The certification of indigents, fairly, sincerely, honestly and sympathetically by the application of standards of eligibility, by central bureaus under the department of welfare, with proper representation from the county medical society. It should not be the function of the outpatient department to pass upon the validity of indigents, nor should they admit for free services those who are not in truth indigents.

5. A medical census of the indigents, to learn what our load is and how to take care of it. There should be devised a positive means of identification to prevent padding of the lists.

6. A limitation of the number of patients that may attend any one clinic. Since it is claimed that there is no profit in clinic and outpatient department services, there should be no desire for a hospital to increase the number of outpatients beyond its capacity to take care of them. To save valuable time, with the economic loss, clinics could be run with a limited number and on an appointment basis.

7. The payment of a fair remuneration to all physicians working in outpatient departments or giving medical services to the indigents in their homes. This remuneration must not be so low as to bring with it an inferior medical practice and the palliative bottle

of medicine. It should not be too high. A fair average can be worked out and still maintain the best qualities of scientific medicine. In the planning of the details of this service it might seem wise to set up a special subdivision of activity under the auspices of the county medical society.

8. The unequivocal opposition to all forms of compulsory health insurance. Insurance schemes tend to relieve the individual of his own responsibility and to increase the prolongation of illness. In short, under an insurance scheme it is profitable for a person to be sick.

9. It is apparent, without wishing to be invidious, that there are, medically speaking, backward areas where the paucity of population and physicians, or its low level economically, or its extreme congestion and poor living conditions render it impossible to provide a fair degree of medical services under the present personal remuneration basis. In such areas it is desirable for the local or state health agencies to set up a laboratory service in chemistry, pathology and bacteriology for the use of practitioners in that area, these laboratories to be established on a regional or geographic basis and with and by representation by the local county medical unit and/or the state medical society. This service is to be a purely diagnostic laboratory service for physicians only, such as exists in our more forward looking states with regard to Widal, Wassermann and other diagnostic procedures. No treatment in any form should be provided under this set up.

10. The studies on rural medicine service should be continued and general principles and policies elaborated for consideration by the House of Delegates. The employment by the government of medical personnel for services in unusual or geographically remote areas has been recommended.

11. What are we to do with "catastrophic illness"? By catastrophic illness I mean the emergency that is expensive and for which no ordinary family can budget. Its emergency character, its expense and the necessity for immediate help render it an important item in the conception of any medical service. It probably represents from 8 to 10 per cent of acute illness at any one time.

The following resolutions on the family physician and the school child where adopted:

WHEREAS, The family physician has labored for these many years without full recognition of his valuable services; and

WHEREAS, The various school systems of the United States depend on the family doctor for the prevention and diagnosis of disease and the protection of the public; therefore be it

Resolved, That the school boards and authorities in charge of the school systems all over our country be respectively requested to enter and file on the index card of every school child the name and address of the chosen family doctor; and be it further

Resolved, That the designated family doctor, together with the parents or guardians of the child, be informed by the proper school authorities of any accident or illness that may befall the child in the schools of this country; and be it further

Resolved, That it be recommended that all records of health examinations accompany the scholastic record of the child as he passes from grade to grade; and be it further

Resolved, That the provisions of these resolutions be brought to the attention of the secretary of each state

medical association and that he, in turn, inform the secretary of each county medical society.

A resolution on the average daily census in hospitals was adopted as follows:

WHEREAS, The House of Delegates of the American Medical Association realizes the advantages accruing from hospitals approved for internship training having an average daily census of seventy-five or more; and

WHEREAS, It is of the opinion that the well equipped small hospital has distinct advantages; therefore be it

Resolved, That the House of Delegates of the American Medical Association direct the Council on Medical Education and Hospitals to approve hospitals meeting the requirements of the American Medical Association, which have a daily census of fifty.

The policy of the American Medical Association on the question of group hospitalization was clarified by the adoption of the recommendation that the contract benefit provided by group hospitalization insurance should be limited to the room, bed, board, nursing facilities ordinarily provided by hospitals, and routine medicines. The reference committee called attention to the definition of the limitations of hospital service as given in the report of the Board of Trustees, as follows:

The subscriber's contract should exclude all medical services—contract provisions should be limited exclusively to hospital facilities. If hospital service is limited to include only hospital room accommodations such as bed, board, operating room, medicines, surgical dressings and general nursing care, the distinction between hospital service and medical service will be clear.

The committee expressed itself in regard to certain benefits offered by many hospital insurance plans, combining professional and technical services, in complete sympathy with those who would make every possible provision to prevent inclusion of any and all types of service involving medical care. The committee felt that further conference between interested medical groups and the American Hospital Association would be of definite value in clarifying the twilight zone between hospital service and medical care.

A Council on Industrial Health was reported upon favorably by the Board of Trustees and approved by the House of Delegates.

A resolution on the campaign against syphilis was adopted which was in line with the action of the Missouri State Medical Association at the Cape Girardeau Session.

Dr. Irvin Abell, Louisville, Kentucky, was elected President-Elect, the Secretary being instructed to cast the unanimous ballot of the House. Other officers elected were: Vice President, Dr. Junius B. Harris, Sacramento, California; Secretary, Dr. Olin West, Chicago; Treasurer, Dr. Herman L. Kretschmer, Chicago; Speaker of the House of Delegates, Dr.

N. B. Van Etten, New York. San Francisco was selected as the place of meeting for 1938.

Dr. Abell, the President-Elect, was born in Lebanon, Kentucky, in 1876 and was graduated from the Louisville Medical College in 1897. He has practiced in Louisville since 1900 and since 1904 has been Professor of Surgery at the University of Louisville School of Medicine. He is visiting surgeon to the Louisville City Hospital and St. Joseph's Infirmary and consulting surgeon to the Children's Free Hospital and the Kosiak Crippled Children's Hospital. Dr. Abell has served as president of the Kentucky State Medical Association, the Southern Surgical Association, the Southern Medical Association and is a member of the American Surgical Association, the American Urological Association and the American Gastro-Enterological Association. He served as Lieutenant Colonel in the Army Medical Corps in France during the World War. He has been a member of the House of Delegates of the American Medical Association since 1922 and has served as chairman of many reference committees during the Annual Sessions.

Dr. Frank D. Dickson, Kansas City, was on the committee appointed by the Committee on Scientific Exhibits of the Board of Trustees for the Special Exhibit on Fractures. Subjects covered in the extensive exhibit were: Plaster of paris, making and storing; application of plaster of paris; fracture of the lower end of the radius; fracture of the spine—compression; fracture of the ankle, and first aid treatment of fractures of the lower extremities. Dr. Harvey D. Lamb, St. Louis, had a scientific exhibit on "Pathology of the Human Eyeball" in the exhibits of the Section on Ophthalmology. Missouri members who appeared on the scientific programs were Drs. Roy L. Kile, M. F. Engman, Sr., and John M. McCaughan, St. Louis; Richard L. Sutton, George H. Thiele, and E. H. Skinner, Kansas City.

SCIENTIFIC EXHIBITS AT THE CAPE GIRARDEAU SESSION

Scientific exhibits can add much to the value of a scientific session. This was well illustrated at the Cape Girardeau Session of the State Association. Several committees had exhibits portraying their work, several members and other organizations displayed phases of work that were of value to the practitioner.

Among committee exhibits was one by the Committee on Postgraduate Work covering some of the material that has been placed before lay audiences and scientific meetings on "Appendicitis." The exhibit was in the form of a series of posters and illustrations centering

around a drawing in water colors revealing the various types and degrees of acute appendicitis. Short statements such as "In Disease, Worry Doesn't Help, Knowledge Can," and "Street Corner Consultations Can't Replace Your Doctor's Advice" were followed by a humorous diagram of a child dancing on the floor because of pain in the stomach and the grandmother erroneously advising ice cap, procrastination and castor oil. A chart "Do You Know That for Acute Appendicitis" carried the information: (1) There are about 20,000 deaths yearly in America; (2) almost 90 per cent of the deaths are the result of peritonitis; (3) almost 20 per cent of the cases have a rupture at the time of operation; (4) for those requiring surgery, after purgatives the death rate increases up to eight times; (5) timing from onset the chance of recovery if operation is performed is: Within six hours, 996 out of 1000, by the twelfth hour 990 out of 1000 and on the third day 875 out of 1000 or seven out of eight; (6) the patient's chance of recovery depends almost entirely upon what happens before he enters a hospital.

The warning of the Postgraduate Committee which it is striving to have ever in the minds of children, their parents, school teachers, health workers and the public in general was given in the following chart: "In the Presence of Acute Abdominal Pain of 2 Hours Duration: (1) Call your physician. He knows how to handle the sick appendix. Follow his advice. While Waiting for Your Physician to Arrive: (2) Obtain complete rest in bed. (3) Do not give or take drugs, food or fluids. (4) Never use purgatives, physics or laxatives. (5) Do not apply cold, heat or poultices. (6) Do not expect relief or cure by self-treatment. The pain may not be caused by appendicitis."

The Cancer Committee presented an exhibit composed of material sent to the Committee by members of the Missouri State Medical Association. Statistical charts made from data obtained from the State Board of Health compared cancer with the first ten causes of death and also showed the relative increase in cancer as a cause of death in the last fifteen years. A map was displayed presenting the counties served by the Tumor Clinic at State Hospital No. 1, Fulton, and the number of patients from each county. A set of displays contributed by the Barnard Free Skin and Cancer Hospital presented pictures and photomicrographs of benign and malignant lesions of the mouth. A lighted display stand presented cured cases of cancer including history, a picture before and after treatment and a photomicrograph, emphasizing the hopeful cases of cancer and the importance of early treatment.

An outline map of Missouri with 309 white crosses representing the maternal deaths in Missouri in 1935 was the center of the exhibit of the Committee on Maternal Welfare. On one side of the exhibit attention was called to the value of prenatal care, including urinalysis, blood Wassermann, blood pressure reading, etc., and these were emphasized by connection to instruments such as the manometer. Clippings from newspapers saying "Mrs. ——— died at a local hospital and is survived by an infant daughter, etc.," were displayed and further emphasized by a sign stating that there were 353 such notices in Missouri newspapers during 1934. This same sign was carried out in regard to infant deaths.

A copy of the new birth certificate showing changes that have been made in the old birth certificate was shown. Attention was called to the fact that better obstetrics will give a lower infant death rate. A chart showed the principal causes of deaths in women in Missouri in 1934 with maternal causes ranking fifth (being outnumbered by pulmonary tuberculosis, heart disease, pneumonia and cancer). A second chart showed each cause of maternal death showing abortions as the second important cause of maternal deaths in Missouri in 1934.

Various phases of respiratory and food allergy combined to give a thorough and consecutive demonstration of the diagnostic procedures and the importance of food sensitization in respiratory allergy as well as in other types were exhibited by Dr. L. P. Gay, St. Louis, and Dr. Herbert J. Rinkel, Kansas City. An analysis of 1200 cases of proved food sensitization in which skin tests had been done showed that the skin test in food allergy has an accuracy of less than 50 per cent. A more accurate method of food testing was presented by a graphic demonstration of the post digestive leukocyte response. The interpretation of this method of study was based on 1200 individual food tests performed by both exhibitors. In this study, the post digestive leukocyte response showed an accuracy of over 90 per cent but is influenced by such factors as the frequency of the food in the diet, preparation of the food and the time consumed in ingestion. Charts showing these possible sources of error were presented as well as charts of individual patients with various allergic diseases such as hay fever, perennial vasomotor rhinitis, migraine, asthma, urticaria, peptic ulcer and mucous colitis. Other cases not usually regarded as allergic but which responded to this type of management were also shown, as acne, essential hypertension and certain forms of arthritis. The management of allergic diseases by means of diaries devised by Drs. Rinkel and Gay were explained in detail.

The exhibit stressed the necessity of using all available diagnostic measures beginning with the skin test, continuing with the post digestive leukocyte response and last the food diaries, and basing all on actual clinical trial.

Major errors involved in the use of droppers for liquid digitalis preparations were illustrated by Dr. Sinclair Luton, St. Louis. In spite of ever increasing suitability of digitalis products for clinical use the exhibit pointed out that there is left a source of major error, long recognized but the extent has not been fully appreciated. The exhibit pointed out that some thirty-four clinicians have found an average error of 50 per cent always, reaching up to 70 per cent when droppers are used. Taking only one third of the needed amount is the result that should not be ignored with a drug such as digitalis. To avoid this error from droppers the exhibit advocated the use of the dry leaf, or with liquid preparations measuring by minims or cubic centimeters and if used in a three or four ounce prescription to employ iso-alcoholism N F 6th as a vehicle.

The exhibit of the State Service for Crippled Children, Columbia, was occupational and displayed handicraft. The exhibit showed some of the lighter and happier phases of hospitalization of the children. Two large main objects and a large number of smaller things that were made by the crippled children at the University Hospitals were shown. The central portion of the exhibit consisted of a large motor driven merry-go-round and some large dancing dolls designed to give a type of cotton picking Negro shuffle dance. There were a number of smaller dolls, book ends, articles of leather work and other illustrations of handiwork. A field nurse was present and distributed legal commitment forms and catalogues and dispensed information on the type of individuals who were acceptable for treatment by the Crippled Children's Service.

"Some Obesity 'Cures' and 'Treatments'" were shown by the American Medical Association. This exhibit exposed many products which are advertised as obesity cures. These unscientific cures and treatments were divided into mechanical devices, chemical substances and food products. Ingredients were given in many of the chemical substances and food products showing most of them worthless, some harmful.

An exhibit on "Public Health Aspects of Cardiovascular-Renal Conditions" was presented by the Metropolitan Life Insurance Company. This display consisted of a series of thirteen charts in color showing the following: Mortality problem from these conditions; variations by geographic areas, sex, age, race and by season; the trend of the death rate as a

whole and in specific age groups, and an estimate of the future problem resulting from the aging of our population.

The Missouri Chapter of the National Society for the Advancement of Gastroenterology presented an extensive exhibit. The exhibit included the demonstration of forty-two gross pathological specimens of various lesions of the gastro-intestinal tract by Dr. Walter J. Siebert. Roentgen ray plates of a case of carcinoma of the stomach before and eighteen months after a total gastrectomy were exhibited by Dr. J. W. Thompson. Dr. Wendell Scott exhibited a large series of roentgenograms of foreign bodies in the gastro-intestinal tract. Dr. F. R. Finnegan demonstrated the treatment of cardiospasm with a Mills pneumatic dilator. Dr. Edwin Ernst exhibited roentgen ray plates showing the filling of the bile duct system with barium following a barium meal. Dr. Horace Soper demonstrated the effects of calomel and double salt solution (magnesium and sodium sulphate) on biliary drainage. All members exhibiting were from St. Louis.

HYPOVITAMINOSIS A

Ancient peoples as well as unlettered peoples of the present era have long been aware of a peculiar eye disease manifested by diminished ability to see during periods of diminished illumination. Their folklore taught them that the ingestion of liver (rich in vitamin A) cured the disease. Now known as hemeralopia (night blindness) this condition is attracting increasing attention from physicians, not only because it is associated with the alarming increase in automobile accidents, but also because it serves as one of the earliest signs of vitamin A deficiency.

Until recently the demonstration of vitamin A deficiency was a matter of pathological investigation rather than an easily detectable clinical entity. The impairment of mucous membrane integrity, as seen in hyperkeratinization, has been suggested as the cause of increased susceptibility to respiratory infections, an assumption not yet proved and still giving rise to innumerable controversial publications. Minimal changes in the conjunctiva leading to unusual dryness of the eye (xerosis) even to lessened tear production have been reported from time to time. Dry, itching, scaly skin, coarse and brittle hair, gastro-intestinal and urinary infections, even kidney stones, all have been associated with the deprivation of this important vitamin. Yet, these subclinical manifestations of disease are not easy of detection; hence, the difficulty of instituting adequate therapy is increased.

The invention of photometers, instruments with which a lessened visual acuity in dimin-

ished light may be simply measured, has given rise to reports that from 25 per cent to 65 per cent of the population suffers from a deficiency of vitamin A. Jeghers¹ examined three groups of persons and found that from 9 per cent to 67 per cent showed photometric evidence of vitamin A deficiency.

Of a miscellaneous group of 149 WPA workers, medical students, technicians and nurses, only two thirds had normal visual efficiency. Of 103 ambulatory hospital patients two fifths showed mild degrees of deficiency, one sixth moderate degrees of deficiency and one fourteenth severe degrees of deficiency. We can only speculate as to the relationship between a long existent vitamin starvation and the infection which originally brought many of these patients to the hospital. Functional impairment of the epithelium normally lining all the external openings of the body as well as the internal passages and cavities may have played a major part in allowing the invasion of bacteria and the development of disease. While there is at present no clinical evidence to substantiate this conception, an abundance of pathological material leaves no doubt as to its possibility. Even atrophy of endocrine glands and questionable involvement of the central nervous system have been associated with vitamin A deficiency.

Friderichsen and Edmund² have contributed some unique observations bearing on the pathological physiology of vitamin A. They determined the presence of vitamin A deficiency in infants (the first time that this has ever been done on a scientific, clinical basis) and studied the effect of various vitamin bearing foods and drugs upon the duration of the disease. They report that the administration of adequate amounts of the vitamin produces a measurable improvement of visual efficiency within ten to fifteen minutes, and at times a complete recovery within half an hour. But, there was no uniformity in the response obtained to various vitamin rich preparations. Dried spinach containing only 100 to 150 international units to the dose produced a response equally as rapid as that following a dose of halibut liver oil containing 5700 units or a dose of cod liver oil containing 4000 units. The least detectable improvement in visual acuity could be effected by only 50 international units of vitamin A in the form of spinach whereas eleven times as much in the form of halibut liver oil produced no detectable improvement. Furthermore, large daily doses of carrot in various forms produced no vitamin A in the body as measured by photo-

metric response. Whether these differences in the physiologic value of vitamin rich preparations are related to the existence of the vitamin or its precursors in the form of alpha, beta or gamma carotene or cryptoxanthin cannot be determined from the present studies. The unconfirmed findings of Friderichsen and Edmund introduce discords into our present understanding of vitamin A physiology. An interesting by-product of their investigation lies in the observation that the ingestion of adequate amounts of the vitamin by vitamin starved infants is accompanied by a considerable psychic uplift.

Whatever the eventual outcome of these and other studies directed to the determination of the vitamin adequacy of the American diet (the development of laboratory methods has already shown many ascorbic persons living on inadequate amounts of vitamin C), they serve to redirect attention to the general subject of menu planning. The more general employment of therapeutic and faddist diets, whether directed by the physician or voluntarily inaugurated by the patient makes widespread understanding of the fundamental requirements of any diet imperative. The reducing craze, to be encouraged whenever there is real obesity, cannot fail to result in an increasing incidence of hemeralopia. That it may be associated with an increasing incidence of infection, with a feeling of malaise and even with mild emotional disturbances, cannot be denied.

Since the present discussion emphasizes that there is a difference in the action of vitamin A rich foods, there must be much hesitancy before the prescription of any therapeutic diet. Eggs, dairy products, "yellow" vegetables, and certain of the green vegetables, all must find their place in the diet, for whatever purpose it is prescribed. Even the unavoidable increase in dietary cholesterol necessitated by the inclusion of eggs and dairy products must be permitted lest disease, either in clinical or subclinical form, develop. For while the body can and does synthesize cholesterol it is unable to synthesize vitamin A unless its direct precursors are supplied. There should be widespread employment of the laboratory methods for the detection of hypovitaminosis A, not only for the reduction of automobile driving hazards but also that the functional integrity of the mucous membranes may be preserved.

COMMITTEE ACTIVITIES

Committees of the Association have been increasingly active in the last few years and reports of the different committees as they appear in the minutes of the Annual Session published in this issue show a record of accomplishment

1. Jeghers, H.: Degree and Prevalence of Vitamin A Deficiency, *Ann. Int. Med.* **10**:1279, 1937.

2. Friderichsen, C., and Edmund, C.: Studies of Hypovitaminosis A, *Am. J. Dis. Child.* **53**:89, 1937.

of which any organization could be proud.

The Committee on Maternal Welfare conducted a part of its work at the Annual Session, the Maternal Welfare Dinner. At this meeting reports of cases of maternal deaths were given and Dr. Norman F. Miller, Ann Arbor, Michigan, was present to discuss these reports. The Committee in cooperation with the State Board of Health and the Children's Bureau of the Department of Labor is conducting refresher courses in pediatrics and obstetrics throughout the state giving postgraduate instruction to physicians in these two subjects. Future plans of the Committee include lay instruction.

"Appendicitis" has been stressed in the last few months by the Postgraduate Committee and the number of laity instructed in this subject cannot fail to have influence. Postgraduate instruction to physicians in other subjects doubled during the last year. The McAlester Foundation has cooperated throughout the year with the Postgraduate Committee and was especially active in the work on "Appendicitis."

"Cancer of the Rectum" was the subject emphasized by the Committee on Cancer during the last year as the fourth part of its five year plan. "Cancer of the Stomach" will be stressed during the coming year. This Committee has continued its work at the tumor clinic at Fulton, one of its members giving a great deal of his time to the work. The Committee has furnished speakers for many lay meetings conducted by the Women's Field Army of the American Society for the Control of Cancer.

The Committee on Medical Economics has worked with the Resettlement Administration in forming a plan for the medical care of clients of the Resettlement Administration in Missouri. Numerous conferences and much study preceded the presentation of the plan. Many phases of medical economics demanded the Committee's attention during the year.

The Committee on Mental Health has presented discussions before component societies during the year and has contacted the various state hospitals making a study of conditions in the state.

Being a year in which the Legislature met the Committee on Public Policy had a great deal of work to do, its members devoting much time to legislative activities.

Other committees whose work does not lend itself to expansion, as the committees on Defense, Publication and Medical Education and Hospitals, showed reports of work carefully done and accomplishment of all activities coming within their scope.

Several committees had instructive scientific exhibits at the Cape Girardeau Session.

Members of the Association may well be

proud of the progressive and constructive work done by its committees.

NEWS NOTES

Dr. Richard L. Sutton, Jr., Kansas City, is visiting Ireland, Scotland and England and attended the British Dermatologic Association meeting in Edinburgh, June 25 and 26.

A memorial service for members who have died during the last year was held by the St. Louis Medical Society on June 8 at the St. Louis Medical Society Building. Dr. J. Joseph Link and Dr. Francis Reder, St. Louis, presented addresses and short eulogies of the deceased were read by members. Members who had died during the year are Drs. Juniattus A. Fisher, George E. Cook, George H. Kuper, Wilbur F. McConkey, Frances L. Bishop, W. McKim Marriott, Joseph R. Hamlin, John P. Hoeffler, William O. Winter, Gustave Lippmann, Charles G. Chaddock, Frank R. Fry and George A. Humpert.

The 1937 Spring Conference of the St. Louis Clinics held from May 24 to 29 was attended by 203 physicians. Two of the doctors were from Canada and the remainder came from the following states: Arkansas, California, Oklahoma, Indiana, Illinois, Missouri, Tennessee, Idaho, Kentucky, Ohio, Wisconsin, Texas, Kansas, Iowa and Nebraska. The attention of the visiting physicians was held through six days and five evenings of clinics and demonstrations. The service talks and demonstrations given by members of the Army and Navy of the Seventh Corps Area were an interesting addition to the meeting.

The following members accepted invitations of the Postgraduate Committee, the McAlester Foundation and the Cancer Committee to deliver addresses at recent meetings of component societies and lay meetings:

Dr. Richard Weiss, St. Louis, was a guest of the Third District Missouri State Nurses Association at a meeting in St. Louis on May 17 and Spoke on "Cancer of the Skin."

Dr. Edgar F. Schmitz, St. Louis, spoke on "The Rôle of the Nurse in Cancer Control" before Red Cross nurses in St. Louis on May 19.

Dr. M. Pinson Neal, Columbia, was a guest of the Jasper County Clinical Society at Joplin on May 22 and spoke on "The Rôle of the Leukocyte in Acute Infection."

On June 5 Dr. J. S. Gashwiler, Novinger,

addressed the Farm Club Women's Division at a meeting at Novinger and showed a motion picture on "Fight Cancer With Knowledge."

The Randolph-Monroe County Medical Society had as its guest on June 8 at Moberly Dr. Andy Hall, St. Louis, who spoke on "Urologic Problems of the General Practitioner."

On June 10 Dr. Fred Emmert, St. Louis, addressed a county wide meeting at Perryville under the auspices of the Women's Field Army of the American Society for the Control of Cancer. Dr. Emmert's subject was "Pertinent Facts About Cancer."

Dr. Charles F. Sherwin, St. Louis, was a guest of the Brotherhood organization of the St. Peter's Evangelical Church, St. Louis, on June 17 and spoke on "Appendicitis."

The South Central Counties Medical Society had as guests at a meeting in Houston on June 18 Drs. G. V. Stryker, John A. Brenman and Robert Britt, St. Louis. Dr. Stryker spoke on "Mucocutaneous Syphilis in the Primary, Secondary and Tertiary Stages"; Dr. Brennan on "Syphilis of the Vascular System," and Dr. Britt on "Syphilis of the Nervous System."

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Abbott Laboratories

- Ampoules Dextrose 50%, 10 cc.
- Ampoules Dextrose 50%, 100 cc.
- Digipoten Tablets 0.05 Gm. ($\frac{3}{4}$ grain)
- Digipoten Tablets 0.1 Gm. ($1\frac{1}{2}$ grains)
- Neosarsphenamine with Metaphen—D.R.L.
- Ampoules Procaine Hydrochloride Solution 2%, 1 cc.

Billhuber-Knoll Corporation

- Metrazol Ampules, 3 cc.

Calco Chemical Co., Inc.

- Sulfanilamide-Calco
- Tablets Sulfanilamide-Calco, 5 grains

Campbell Products, Inc.

- Mercurin

- Mercurin Suppositories

Hoffman-La Roche, Inc.

- Riboflavin Synthetic-Roche
- Riboflavin-Roche Ampules, 2 cc.

Syntropan

- Ampuls Syntropan Solution, 0.01 Gm., 1 cc.

- Tablets Syntropan, 0.05 Gm.

Lederle Laboratories, Inc.

- Sulfanilamide-Lederle
- Tablets Sulfanilamide-Lederle, 5 grains

Merck & Co., Inc.

- Vinethene-Merck
- Sulfanilamide-Merck
- Tablets Sulfanilamide, 5 grains

National Aniline & Chemical Co., Inc.

- Methylene Blue

Sharp & Dohme, Inc.

- Pollen Extracts-Mulford (Complete treatment package containing 2 cc. vial containing 100 pollen units per cubic centimeter and one 10 cc. vial containing 5000 pollen units per cubic centimeter)

Upsher Smith Co.

- Tincture Digitalis Upsher Smith
- Tablets Digitalis Upsher Smith $\frac{1}{2}$ grain
- Tablets Digitalis Upsher Smith 1 grain
- Tablets Digitalis Upsher Smith $1\frac{1}{2}$ grains
- Capsules Digitalis Upsher Smith $\frac{1}{2}$ grain
- Capsules Digitalis Upsher Smith 1 grain
- Capsules Digitalis Upsher Smith $1\frac{1}{2}$ grains

E. R. Squibb & Sons

- Sulfanilamide-Squibb

- Tablets Sulfanilamide-Squibb, 5 grains

Winthrop Chemical Co., Inc.

- Pontocaine Hydrochloride-Winthrop
- Pontocaine Hydrochloride Solution 1%
- Pontocaine Hydrochloride Solution 2%

John Wyeth & Brother, Inc.

- Silver Picrate-Wyeth's
- Silver Picrate Crystals
- Silver Picrate Vaginal Suppositories
- Compound Silver Picrate Powder

MISCELLANY

RESOLUTIONS ON THE DEVELOPMENT OF A NATIONAL HEALTH PROGRAM

The resolutions introduced in the House of Delegates of the American Medical Association by Dr. Samuel J. Kopetzky, New York, and the report of the Reference Committee on Executive Session, to which the resolutions were referred, follow:

WHEREAS, The house of delegates of the Medical Society of the State of New York in annual session at Rochester, 1937, adopted certain resolutions which carried instruction to its delegation to the House of Delegates of the American Medical Association, and

WHEREAS, These resolutions concern the following Principles and Proposals anent the development of a National Health Program, and the special circumstances under which the delivery of a high quality medical care to the American people may be evolved under conditions within the framework of adopted policy of the American Medical Association, and

WHEREAS, These Principles and Proposals are as follow:

Principles

1. That the health of the people is a direct concern of government and a national public health policy directed toward all groups of the population should be formulated.

(a) In the formulation of such policy the opinions and suggestions of organized medicine should be given preference.

(b) That the House of Delegates of the American Medical Association create a group which shall formulate the principles and proposals of a national health policy to be submitted to the government.

2. That adequate medical care is an essential element of public health and local, state and federal governments need to supplement present efforts of the medical profession to provide it.

(a) That the House of Delegates of the American Medical Association establish a working definition of the term "adequate medical care" suitable for the purpose of discussing national legislation and social legislation.

3. That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.

(a) Principle 3 implies that the problem of providing the individual with the means of securing medical care—that is, the economic needs—and the problem of distributing medical services are not identical; that these problems of economic needs should be approached separately from those of distributing medical services to the people.

Proposals

1. That the first necessary step toward the realization of the above principles is to minimize the risk of illness by increasing preventive efforts through extension of public health services, federal, state and local.

(a) That the extension of federal, state and local preventive health measures is approved provided it meets the needs of a given situation in the opinion of the medical profession in the locality affected and provided it integrates to the greatest possible extent the private practitioner of medicine in the development of preventive health services.

2. That the immediate problem is provision of adequate medical care for the medical indigent, the costs to be met from public funds.

3. That public funds should be made available for the support of medical education and for studies, investigations and procedures for maintaining the present high standards of medical practice. This support shall have the majority opinion of organized medicine to recommend it. If this is not provided for, the provision of adequate medical care may prove impossible.

4. That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.

5. That public funds should be made available to hospitals that render service to the medically indigent and for laboratory diagnostic and consultative services.

(a) With the provision that these consultative and laboratory diagnostic services shall be established only in regions where the medical profession approves the need for same and after consultation with the local medical profession in the area affected.

6. That in the allocation of public funds existing private institutions should be utilized to the largest possible extent and receive support as long as their service is in accord with the above proposals.

(a) That insofar as the allocation of funds is concerned for these institutions, they should not be made on a pro rata population basis but should be limited strictly by the needs of given institutions in specified localities and the allocation should have the approval of the medical profession in the locality in which the institutions are located.

(b) That in the selection of existing institutions to which public funds may be allocated their rating and their needs shall be measured by the standards of the Council on Medical Education and Hospitals of the American Medical Association; and no public funds should be made available to existing institutions against and contrary to the majority opinion of the medical profession in the locality in which they exist.

7. That the investigation and planning of the meas-

ures proposed and their ultimate direction should be assigned to experts.

(a) It being recommended that the various subdivisions of the American Medical Association, namely, its national, state and county components, furnish to the government on request lists of experts in their communities to carry out these principles and proposals.

(b) That the word "expert" is taken to mean a man especially qualified by experience in his specific field. Nominations of these "experts" should be by units of organized medicine. The nominations and recommendations by organized medicine should be given preferential consideration by government in making its selection.

8. That the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates, in our opinion, a functional consolidation of all federal health and medical activities under a separate department.

9. That we who subscribe to the above principles, proposals and recommendations hold the view that compulsory health insurance does not offer a satisfactory solution on the basis of these principles and proposals and repeat our objections to its enactment in this country; therefore be it

Resolved, That the House of Delegates of the American Medical Association endorses the principles, proposals and recommendations just cited; and be it further

Resolved, That the House of Delegates authorize the formation of a committee which shall, in conformity to the above, formulate a national health policy for submission to the government, and further be empowered to confer with government agencies and also with any other medical groups so that differences in conception, definition of terms and applicability of principles and procedures may be ironed out in conference regarding those matters in the above principles and proposals which are of national scope and to the end that they may be enacted.

The Report of Reference Committee on Executive Session

The Reference Committee has carefully considered the resolutions on the development of a national health program introduced by the New York delegation and has held hearings at which the details of the principles and proposals were freely discussed.

The Board of Trustees has already reported to this House of Delegates its considered opinion pertaining to the reorganization, in one consolidated department, of the activities of the federal government having to do with the promotion of health and the prevention of disease. Copies of this statement, as printed in *The Journal* and in the Handbook of the House of Delegates, were transmitted to the President of the United States and to others in official position in Washington, and the attention of constituent state medical associations was especially called to the action of the Board, as follows:

Recognizing that committees of the Senate and of the House of Representatives of the United States government and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of government activities in the executive branches, and recognizing moreover the great desirability that all activities of the federal government having to do with the pro-

motion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory or other governmental interest. It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This organization and consolidation of medical departments need not under present circumstances involve any expansion or extension of governmental health activities but should serve actually to consolidate and thus eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration.

Since the House of Delegates during this session has already approved this action of the Board of Trustees your Reference Committee deems it unnecessary to submit for your consideration that portion of the resolutions which deals with this subject.

Your Reference Committee recognizes that certain principles stated in the resolutions presented by Dr. Kopetzky have been considered by the House of Delegates on previous occasions and are matters of record. These include for example, the recognition of the primary importance of public health, the opposition to compulsory sickness insurance and the separation of the problem of economic need and the distribution of medical service.

The Board of Trustees has given careful consideration to the extension of medical service to the indigent, as indicated in the following statement, which was contained in the report of the Board of Trustees as printed in the Handbook and which was approved by this House during its session, June 8, 1937:

In the past, the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and medical service. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor competent financially find themselves under some circumstances unable to meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part. Members of the medical profession, locally and in the various states, are ready and willing to consider with other agencies ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service and not able to meet the full cost thereof. These are problems for local and state consideration primarily, rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situation.

The American Medical Association is cognizant of the medical needs of the people of the United States and is genuinely interested in all plans for providing

and distributing medical care. The records, reports, source material and experience of the Association are of great value. They are at the service of agencies contemplating the development and operation of plans for medical care. These factual data, source material and experience are readily available for use in promoting and protecting the health of the American people.

Your reference committee recommends that the bureaus, councils and committees of the Association continue their studies of the need for and the methods of distributing medical care to the end that the American Medical Association shall continue to do everything possible to promote and to protect the health of the American people.

The American Medical Association reaffirms its willingness, on receipt of direct request, to cooperate with any governmental or other qualified agency, and to make available the information, observations and results of investigation together with any facilities of the Association.

REPORT ON CONTRACEPTIVE PRACTICES

That physicians throughout the state may have full information concerning the action of the House of Delegates of the American Medical Association at the Atlantic City Session on contraceptive practices, the full report of the Committee to Study Contraceptive Practices and Related Problems and the report of the Reference Committee on Executive Session to which the report was referred are reprinted in full as they appear in the minutes of the Session.

Report of Committee to Study Contraceptive Practices and Related Problems

Your committee was appointed by the Board of Trustees pursuant to a resolution adopted by the House of Delegates June 11, 1935, as follows:

WHEREAS, Under the stimulus of large nonmedical groups, the general use of contraceptives is being advocated and encouraged despite the existing law, not only by the above mentioned groups but by commercial interests as well; and

WHEREAS, The ultimate effect of these measures on the health and general welfare of the population of the United States is unknown if not questionable and should accurately and extensively be studied by the medical profession, in whose care the health of the people rests; and

WHEREAS, The laws both federal and local, governing the physicians in their advice to individual patients, where such advice is given as a therapeutic measure, seem to be complicated, not well understood, and generally unsatisfactory, and their interpretation difficult; therefore be it

Resolved, That a special committee be appointed after due consideration by the Board of Trustees to study these related problems and to present at least a preliminary report to the House of Delegates of the American Medical Association at the 1936 annual session; and be it further

Resolved, That the trustees be requested to appropriate the funds necessary in order to carry out the purposes of these resolutions.—*Proceedings, House of Delegates, 1935, p. 45.*

The committee submitted its first report at the Kansas City session of the House of Delegates in 1936. That report, modified as suggested by the Reference Committee on Executive Session, was adopted by the House on May 12. Pursuant to the report as thus adopted, the committee was continued by the Board of Trustees "to continue a study of birth control and to report further to the House of Delegates." This report is submitted in compliance with that mandate.

Since the first report of the committee was submitted, the committee has received communications from various organizations interested in the subject, which will be presented to the House of Delegates.

The present report of your committee is limited to a consideration of the prevention of conception only as it refers to the relation of physician and patient.

Information concerning contraception is admittedly available to persons in favorable economic circumstances. There appears to be no law to prevent physicians who work in dispensaries from furnishing patients there with any information that may lawfully be furnished to patients in any other economic group. In all cases, the legal justification is the medical need of the patient.

All dispensaries, clinics and similar establishments where information and advice concerning the prevention of conception are given to the public should in the opinion of your committee be under legal licensure and supervision and under medical control.

Medical conditions which make conception inadvisable or contraindicate it were listed in the first report of your committee. Nothing has come to the attention of the committee since that report was submitted requiring any significant modification of that list.

In view of the frequent occurrence of medical indications for the prevention of conception, and in view of the medical complications that arise from ill advised contraceptive practices resorted to by women on their own initiative and without medical advice, which call for medical care, medical students should, in the opinion of your committee, be instructed fully concerning fertility and sterility and taught the clinical considerations and therapeutic application of contraceptive methods.

It is recognized that voluntary family limitation is dependent largely on the judgment and wishes of individual parents. The intelligent, voluntary spacing of pregnancies may be desirable for the health and general well being of mothers and children. This raises the question of how many pregnancies are biologically desirable and physically safe, and of the best practical means for determining the proper interval between them. No arbitrary interval can be stated. A variety of factors must be considered, including the patient's general health, the character of the previous pregnancies and labors and of recovery from their effects, and the incidence of intercurrent illness. Your committee reiterates the opinion, expressed in its first report, that each case must be determined by the individual judgments of parents and physician, based on the conditions present.

In its first report your committee stated that it had been unable to find evidence that existing laws, federal or state, had interfered with any medical advice which a physician felt called on to furnish his patients. This view has been supported by the recent decision of the United States Circuit Court of Appeals, Second Circuit, Dec. 7, 1936, in *U. S. v. One Package*, in which it was held that a statute the words of which forbade absolutely the importation of articles for the prevention of conception was not designed to prevent the importation of things which might intelligently be employed by conscientious and competent physicians to save life or to promote the well being of patients. Although the statutes in force in the several states that forbid the dissemination of information concerning methods for the prevention of conception do not in express terms exempt physicians from their operation, it seems fair nevertheless to assume that the state courts, if called on to construe them, will adopt lines of reasoning similar to those followed in the case cited and in other cases decided by United States courts, leaving physicians free to give information concerning contraception when required to meet the medical needs of patients.

In view of the admitted medical necessity for avoiding conception in certain cases and of the general use of contraceptive preparations and devices, your committee finds no reason why the American Medical Association should not investigate such substances and devices. Such investigations for medical purposes seem

to constitute a logical part of the activities of the Association in the field of therapeutic research.

RECOMMENDATIONS

Your committee respectfully submits the following recommendations:

1. That the American Medical Association take such action as may be necessary to make clear to physicians their legal rights in relation to the use of contraceptives.

2. That the American Medical Association undertake the investigation of materials, devices and methods recommended or employed for the prevention of conception, with a view to determining physiologic, chemical and biologic properties and effects, and that the results of such investigations be published for the information of the medical profession.

3. That the Council on Medical Education and Hospitals of the American Medical Association be requested to promote thorough instruction in our medical schools with respect to the various factors pertaining to fertility and sterility, due attention being paid to their positive as well as to their negative aspects.

Report of Reference Committee on Executive Session

The committee appointed in 1935 to study the subject of birth control and related problems made its report in 1936 at the annual session of the American Medical Association. The committee was continued at the 1936 session for further study of the related problems. Its present report is on contraceptive practices. With slight modifications your reference committee approves the recommendations now made and recommends that there be added to the first recommendation, "That the American Medical Association take such action as may be necessary to make clear to physicians their legal rights in relation to the use of contraceptives," the words "emphasizing the fact that all considerations in this report on the subject of the prevention of conception have their application only in conditions arising in the relation of physician and patient," and that this recommendation so modified be referred to the Bureau of Legal Medicine and Legislation.

Your reference committee recommends that the second recommendation, "That the American Medical Association undertake the investigation of materials, devices and methods recommended or employed for the prevention of conception with a view to determining their physiologic, chemical and biologic properties and effects, and that the result of such investigation be published for the information of the medical profession," be referred to the Council on Pharmacy and Chemistry and also to the Council on Physical Therapy.

Your reference committee recommends that the third recommendation, "That the Council on Medical Education and Hospitals of the American Medical Association be requested to promote thorough instruction in our medical schools with respect to the various factors pertaining to fertility and sterility, due attention being paid to their positive as well as to their negative aspects," be referred to the Council on Medical Education and Hospitals.

Your reference committee further recommends that information and advice concerning the prevention of conception given in dispensaries, clinics and similar establishments should be given only in such dispensaries, clinics and similar establishments legally licensed to treat the sick and under medical control.

In accordance with the usual procedure of the American Medical Association all letters, communications and resolutions of individuals and societies bearing on the subject of birth control and its related problems which have been sent to the American Medical Asso-

ciation were referred to and were fully considered by the committee on those subjects before and in the making of its report. This includes the resolution offered this day from the American Neurological Association.

Your reference committee recommends that the Committee to Study Contraceptive Practices and Related Problems be not discharged at the present time but that its existence be continued for the purpose of supplying any assistance which it may be called on to render.

The report of the Reference Committee on Executive Session on contraception was adopted section by section and as a whole.

SYPHILIS

The Missouri Social Hygiene Association is preparing a series of articles on various phases of syphilis. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are reprinted that the members throughout the state may have the opportunity of reading them.

The Diagnosis of Congenital Syphilis (Juvenile)

The signs and symptoms of late congenital syphilis may be considered under the heading of true syphilids and developmental stigmata. The age incidence is roughly between 3 and 28 years with 12 as the mean. From a diagnostic point of view the serologic blood test ranks lower than in any other form of syphilis.

Of overwhelming importance are the eye symptoms, notably interstitial keratitis. Fifty-two per cent of all persons coming to medical attention because of congenital syphilis have or have had interstitial keratitis, and only 22 per cent are found to have normal eyes. The onset of keratitis is commonly between the ages of 5 and 15. A slight ciliary congestion followed by the appearance of small grayish infiltrative deposits either toward the periphery or in the center of the cornea is the first sign. Circumcorneal injection of the sclera or the smarting and lacrimation which are the forerunners of photophobia, may be the first things to attract the patient's attention. The physician would find it of the greatest value in his routine to examine the cornea with a lens for cloudy spots and faint grayish stippling whenever a child complains of sore or running eyes or has "conjunctivitis" or "pink eye." Early diagnosis is of supreme importance in this intractable manifestation, as will be brought out under treatment.

The other eye lesions are not distinctive of syphilis. Primary optic atrophy is said to be an unusually frequent accompaniment of juvenile tabes, but it is a much less frequent cause of failing vision in the child with congenital syphilis than chorioiditis and chorioretinitis.

The incidence of eighth nerve deafness is estimated at between 10 and 15 per cent. It is usually accompanied by tinnitus and vertigo, and frequently by keratitis.

Only the second dentition teeth show changes that are distinctly syphilitic. The classical upper Hutchinson incisors are pathognomonic. The "pegging," widening of spaces between the lower incisors, the mulberry molar and other dental signs often associated with congenital syphilis, must be confirmed by other signs and symptoms.

Bone signs are of extreme importance. They are the result of osteitis or periostitis in infantile syphilis. The tibia and clavicle, being near the surface and frequently affected, are the most used diagnostic land-

marks. The saber tibia and the thickened inner third of the clavicle should be checked by roentgen ray, as well as the "heavy knees" and large wrists and elbows which may be due to syphilitic epiphyseal enlargement.

The so-called developmental stigmata are suggestive rather than diagnostic, constitutional inferiority, gigantism and infantilism, bony abnormalities of cranial bosses, scapulae, palate and middle fingers and especially the facies.

Visceral and cardiovascular symptoms are rare, but neurosyphilis and nervous disorders occupy a position of great importance and present all of the forms discussed under acquired syphilis in the adult. An asymptomatic type would be much more frequently diagnosed if more attention were paid to the spinal fluid examination of the younger child.

There is a marked tendency for juvenile neurosyphilis to progress to a fatal ending in paresis. Juvenile tabes, however, runs a milder course than in the adult acquired type. Mental retardation and certain conduct disorders are so important as initial symptoms of neurosyphilis that a spinal fluid examination should be made when such cases are pronounced or progressive. A high degree of nervous irritability is present in about 22 per cent of cases. It is the impression of some authorities that dementia praecox is more frequent in the children of syphilitic parents, but this opinion is not universally accepted.

The Treatment of Late Congenital Syphilis (After Moore)

The principles of treatment are the same as in late acquired syphilis. With minor modifications in drugs or dosage necessitated by the patient's age or the technical difficulties of intravenous medication, the same outline of treatment as for adults may be followed. For an unknown reason, cardiovascular lesions occur with such rarity in late congenital syphilis that they may be dismissed as nonexistent.

Neosarsphenamine is the arsenical drug of choice when intravenous medication is technically easy, except in patients with interstitial keratitis; sulpharsphenamine may be used in infants. Below the age of 15, the dosage should be on the basis of weight. In older children, adult dosage may be employed. It should always be kept in mind, however, that children should have approximately two weeks of treatment with mercury or bismuth before arsphenamine therapy is begun. Bismuth is preferable to mercury in older children.¹

The result is considered to be satisfactory if lesions originally present disappear and there is no evidence of subsequent progression or relapse, or in the case of patients with irremediable stigmata or scars (saddle nose, dental abnormalities, saber shins, deafness, corneal scarring), if no fresh active lesions develop during the observation period, the patient's general health remaining as good as, or better than, on admission.

In contrast to late acquired syphilis of all types, there is no direct relationship between clinical outcome and the total duration of treatment. A relatively small amount of treatment accomplishes as much in preventing subsequent relapse or progression as a great deal. The presence of active lesions of any type before treatment, as in late acquired syphilis, predisposes to subsequent relapse, which is far less common when the patient has attained spontaneous latency. The patient's own defense mechanism, therefore, plays as important a rôle in congenital as in acquired syphilis.

The most frequently observed relapse is interstitial

1. Depending on whether or not the infection is latent or accompanied by active lesions, an essentially similar plan as to character and duration of treatment may be followed as has been outlined in previous articles for adults.

keratitis which is generally thought to be one of the most resistant to treatment of all syphilitic lesions. Old arsphenamine is usually employed and the average dosage is larger than in patients with less serious or less resistant lesions, and treatment is preferably continuous rather than intermittent. Many physicians, impressed with the relative inefficacy of antisiphilitic treatment in interstitial keratitis, have tried various nonspecific measures such as malaria, the intramuscular injection of milk or the intravenous injection of typhoid vaccine. Roentgen-ray therapy has also been employed as an adjunct to antisiphilitic treatment, but all of these methods so far are of doubtful value. Success in this stubborn lesion depends overwhelmingly upon early diagnosis, prompt, heroic and prolonged therapy.

The treatment of congenital neurosyphilis is the same as outlined for adults, except that tryparsamide should never be used in infants or young children, because of the risk of blindness. Fever therapy, especially malaria, is being widely used in juvenile neurosyphilis, especially paretics, with good results.

Enthusiastic reports are being made on the use of stovarsol. The dose ranges from 5 to 20 mgm/kg daily, starting with the smaller and increasing slowly to the larger dose. A course of treatment consists of from 8 to 10 weeks and results seem to be favorable. The method does, however, need more experimental study and statistical material.

The Prevention of Congenital Syphilis

Congenital syphilis is a disease which has no right to exist. To be born with syphilis or to give birth to a syphilitic child are among the major tragedies of human life. In diagnosing syphilis, there are two precepts which should be accepted with axiomatic authority, make a dark field examination in every genital lesion and make a serologic blood test of every pregnant woman.

A strongly positive blood reaction verified on repetition is diagnostic of syphilis. The weak positive does not exclude syphilis and should call for close investigation and for a follow-up of both mother and child. A negative does not exclude the possibility of syphilis and its value must be judged by all the circumstances of the case.

The question as to whether the syphilitic pregnant woman with a weak positive will give birth to a healthy child is answered by Cooke and Jeans with the statement that the chances in favor of a healthy child under such circumstances are six or eight to one.

If the mother has a strong positive, these observers believe that the probability that the child will have syphilis exceeds 70 per cent. The question of the existence of syphilis in the pregnant woman is so vital to the child and to herself that the diagnosis cannot be left to a single blood test if there is the slightest reason for carrying the matter further.

The spinal fluid examination is rarely necessary in the pregnant woman. If the husband has an obvious neurosyphilis and there is doubt of the presence of syphilis in the pregnant wife, the spinal fluid test may be justifiable during pregnancy in an effort to make the diagnosis.

No plan of treatment can be followed arbitrarily. If the infection occurs at conception or during the first few weeks of pregnancy as evidenced by the presence of a chancre and a negative serologic blood test, an attempt at radical cure should be made. The pregnant woman should not be overloaded, and any signs of reactivity must be taken more seriously than in the case uncomplicated by pregnancy. In case of primary

lesion and negative serologic blood test in the last three months of pregnancy, it is doubtful if these strenuous measures for radical cure are justifiable.

For the first pregnancy in a mother with latent syphilis of from one to five years duration, blood reaction positive, the 6 to 8 injective arsphenamine course with weekly intervals between injections may be begun as soon as the patient comes under observation. In multiparae who have carried more than three pregnancies beyond the seventh month, with positive blood reaction a single course of from 8 to 10 injections of the arsphenamines in the middle of pregnancy followed by mercury by mouth or bismuth up to the end of the eighth month should protect the child. (Stokes.)

It has actually been proven that, if the mother's syphilis is detected early in pregnancy and systematic and energetic treatment applied throughout the course of gestation, the vast majority of the children are born healthy and remain so in after-life. Gammeltoft, in Copenhagen, obtained such success in all of his 483 cases, but he had the benefit of the hygienic laws in Denmark according to which every syphilitic patient must remain under treatment as long as the physician so decides.

One out of every twelve pregnant women examined in fifteen clinics in various American cities was found to have syphilis. Only when the physician acts on the established fact that no pregnant woman has any certain assurance that she is free from infection, nor any absolute certainty that her baby will not be syphilitic unless she has a negative serologic test, can we hope for great progress in the eradication of congenital syphilis. Every pregnant woman has a right to demand that such a test be made, and as a result of popular education on the subject, many of them are insisting upon it when the doctor has been negligent in making the suggestion.

Syphilis and Marriage (After Stokes)

The transmission of syphilis in marriage is primarily dependent upon the duration of infectivity. While this, as stated previously, cannot be exactly defined, long experience has indicated that the chief danger lies in the first five years. The infectious period may be prolonged by ineffective treatment or phenomenal resistance. It is, therefore, evident that neither unqualified pessimism nor careless optimism is justified in estimating the risk of marital transmission of syphilis. An unqualified assurance regarding the fitness of a syphilitic patient for marriage cannot be made.

While the average male patient should reach a non-infectious condition within five years, any extended clinical experience soon demonstrates that women in particular may violate all time rules with reference to the transmission of the disease to children. The demonstration of the infectiousness of syphilitic semen shows that absence of active signs and a stated period of time does not necessarily insure the fitness of the male.

Transmission of the disease to the marital partner while the most important, is not the only issue in the weighing of fitness to marry. In the natural course of events, a patient who has had a syphilitic infection, especially the husband, carries the risk of a possible future breakdown. Possibly from 5 to 10 per cent of syphilitic husbands will develop neurosyphilis and an unknown proportion will develop cardiovascular lesions in spite of vigorous modern treatment. The families of such patients may become a cost to the community to say nothing of the social loss entailed by the removal of parental influence. The younger the patient with syphilis who seeks marriage and the less prepared economically to meet the risk of complications, the more

cautious should the physician be in sanctioning the establishment of a family.

Fitness for marriage varies, then, first with the duration of the disease in the infected party; second, with sex, women being the more uncertainly eligible than men; third, with the course of the individual infection. "Mucous relapsers," neurosyphilitic patients, serologic recidivists, and fixed positive cases must be judged solely on their individual merits, and generally unfavorably. The amount of treatment given the infection is the fourth criterion. It should meet the best proved requirements of the present day, as outlined in previous numbers. In the fifth place, the economic responsibilities to be assumed have a social right of consideration. The marriage of elderly noninfectious syphilitic patients in easy circumstances is a matter of small concern. That of young and recently infected partners with the prospect of children and an unknown economic future confronting them, is an issue of great concern to themselves and to the state.

There is no landmark or milestone which when once passed indicates fitness for marriage. The negative serologic test, too often relied upon by both physician and patient, is absolutely untrustworthy. In spite of the legislative confidence which has been voted it, it has no deciding value in the determination of fitness either for marriage or for pregnancy.

Both European and American opinion of the theoretical requirement for the marriage fitness of the average early case is summarized in the Hoffmann rule. This calls, in general, for no less than four courses of the arsphenamines and two years of mercury and bismuth, regardless of initial or interim negative serologic blood tests; a spinal fluid which has been negative long enough (from the sixth month on) to convince the experienced consultant that neurosyphilis has been completely overcome; and a cardiovascular examination, negative at all points in the fifth year.

Any plan for the control of infectiousness in marriage, whether it begin with the five year rule or not, requires as a basic feature full information as to the situation given to the noninfected partner before or in marriage. Any other course is short-sighted and dishonest.

OBITUARY

JOSEPH R. HAMLIN, M.D.

Dr. Joseph R. Hamlin, St. Louis, a graduate of Washington University School of Medicine, 1910, died December 27, 1936, of coronary embolism at the Missouri Baptist Hospital, St. Louis, aged 51 years.

Dr. Hamlin was born at Gray's Summit and was educated at the LaGrange College, LaGrange. After completing his medical education in St. Louis he practiced in Maywood, Missouri, and continued his practice there until 1919 when he moved to St. Louis. He remained in active practice there until a short time before his death. He was ill for about ten days preceding his death.

He is survived by his widow, Mrs. Kate Hamlin, two daughters and a brother.

GUSTAVE LIPPMANN, M.D.

Dr. Gustave Lippmann, St. Louis, a graduate of the Rheinische Friedrich-Wilhelms-Universität Medizinische Fakultät, Boon, Prussia, 1892, died at the Jewish

Hospital, St. Louis, May 23, after an illness of several weeks, aged 68 years.

He was born in Neuweid, Germany. His family moved to St. Louis a year prior to the completion of his medical studies and he joined them in 1894. He began a general practice but soon became interested in pediatrics and later restricted his work to this field.

Until a few years ago he was a professor of pediatrics at St. Louis University School of Medicine. He was a member of the staff of St. Louis Children's Hospital and the Jewish Hospital. He was a member of the board of the Children's Aid Society.

Dr. Lippmann found time for many interests outside his profession. He collected pictures and books and was a patron of music. He was a member of the Artists' Guild, the Players, Public Questions Club, the League for Industrial Democracy, the Civil Liberties League and the Ethical Society. He was interested in the work of the Young Men's Hebrew Association.

He is survived by his widow, a daughter, a son, two brothers and three sisters.

JAMES W. McCARTY, M.D.

Dr. J. W. McCarty, Salem, a graduate of the Georgia College of Medicine and Surgery, Atlanta, Georgia, 1914, died suddenly of heart disease at his home on May 24, aged 45 years.

Dr. McCarty was born at Coal Creek, Alabama. He was educated in the schools there and at Jefferson County Institute at Birmingham. He taught a rural school for two years and then was instructor in general science in the high school at Piedmont, Alabama. He spent his first three years of medical study at the Birmingham Medical College. He served his internship in the Samaritan Hospital, Detroit, and in the Charity Hospital, Shreveport, Louisiana.

He practiced in several locations in the West before locating in Missouri. Soon after coming to Missouri he served in the World War in the Medical Corps. He located at Salem in 1923 and continued in practice there until the time of his death, returning from his office only a short time before he died.

He is survived by his widow, Mrs. Stella Swiney McCarty, two sons, five brothers and two sisters.

Books for Leisure Moments

I suppose that no single subject of general conversation, even in these days of incessant debate over the issues of the Supreme Court, receives more attention than that relating to the art or mistake of bringing up children. Probably the old black mammy who had the idea that children "just grewed" was not so far wrong. But in an age of science, when everything is analyzed and reanalyzed in accordance with mathematical principles, there has been much effort to change the process from just growing into something called training. There is too much effort at planning the life of the child. His day is too well ordered, sometimes by adults who have forgotten that they, too, were children not so long ago. Any parent can go to lectures, club meetings, read the newspapers and get all sorts of advice on how the perfect child should be reared, and mess up the child's life.

It is therefore refreshing to find an author who believes that children should be allowed a certain freedom; one who would see them develop naturally. To the task of child training he brings a deep understand-

ing of the fundamental motivating forces that go to make the child what he is, not what some adult thinks he ought to be. Dr. Fritz Kunkel, Berlin, a specialist in nervous diseases, does not believe that the child should be entirely untaught. But he is more concerned with the broad general aspects of character than he is with the minutiae of expression. His fourteenth and latest book, the third to be translated into English, is entitled "What It Means to Grow Up" (Charles Scribner's Sons, New York).

According to Kunkel, growing up means increasing the tension capacity. Tension capacity is described in terms of the reactions of the socially immature child and the matured adult, both starving, to food which does not belong to them. The child, without reasoning, greedily devours the food, seeking only to satisfy his wants. The adult, on the other hand, socially more awakened, considers, balances the immediate satisfaction of hunger with the discomfort of meeting the owner of the food. The child has not attained the age of discretion. Because he is yet a child he has little judgment, little self control, little conception of that which may follow. The matured adult, however, possesses all these in abundance. He weighs consequences before he acts. Insofar as he subordinates thought to action, he may be considered to have achieved a corresponding degree of tension capacity.

Well chosen case reports illustrate the author's thesis. Kunkel finds a definite service for the adult bent on helping youth to solve its problems. The adult may help by interpreting to youth the reason for his unsatisfying behavior. Thus, a sixteen year old girl, never attuned to the reality of life, gained her own way for years by throwing temper tantrums. When these failed to achieve her ends, enagement and chagrin expressed themselves in severe attacks of vomiting, a physical expression of emotional frustration commonly met. A wise school superintendent solved this girl's problem when he took the time to explain to her the transference of frustration which expressed itself in terms of physical disease. By so doing he increased her tension capacity, enabled her to relate herself more acceptably to others. The whole range, or nearly the whole range of human foibles and failings is interpreted in the light of the tension capacity possessed by the individual. It becomes easier to understand the reactions of children as the orderly sequence of this small book unfolds.

One of the small wonders of the volume is that it could be printed at all in a country ruled by a dictator, for in the chapter devoted to them Kunkel continues to interpret in terms of tension capacity. That he finds some dictators underdeveloped is not to be wondered at.

Just as the author insists that the child work out his own philosophy, his own relation to his environment, his own attitude toward members of the same and opposite sex, all by increasing his tension capacity, so he insists that the reader work out from the bare outline he has provided, his own method of meeting the problems of childhood. For, "the final decision in this matter (the interpretation of experiences, the formulation of a point of view, the manner of meeting life) each person must make alone and for himself." B. Y. G.

"It has been a privilege to be a friend of this woman who felt the call to desert a charming, easy social life in Virginia, to follow in the footsteps of a long line of medical forebears." So writes Dr. Hugh Young of Baltimore in concluding his introduction to "A Woman Surgeon" (Frederick A. Stokes, New York), the inspirational, fascinating autobiography of Rosalie Slaughter Morton, surgeon and universalist. To me

it has been a privilege to have read the glowing account, fresh, vivid, humane, which Dr. Morton gives of her life, to travel with her over much of the world, to ponder her social philosophy, to enjoy the unholy beauty of make-shift hospitals cast in the scarred ground behind the field of battle, to reflect upon the spirit of men as only a woman could delineate it.

"We do not know specifically how, or when we garner this education but the individual richest in experience responds most happily to the greatest number of stimuli and learns more truly what are the essentials of life, what are trivialities, vanities and other brittle playthings." One of the methods by which one contributes to that richness in experience of which the author writes is through reading a volume such as this. Devoted to people, happiest in serving their interests, in selflessly advancing others Dr. Morton is at her best in recounting her Serbian experiences. The heroism of a people, spurred on through trackless, snow-covered mountains where every chasm was a yawning death, without food for stomachs that had lost track of all time, with bleary eyes lacking the sparkling warmth which clothes may afford when all else is gone, the heroism of such people spurred on only by the personal mettle of the then Prince Alexander, assumes epic proportions in the racing depiction offered in these pages. The woman is evidenced in the author's courage in bringing to this country sixty-one Serbian children that they might be divorced from the tragic aftermath of war, that they might carry back to the rehabilitation of that little country which had been devastated by three wars in the course of a single generation, new abilities and new concepts. This courage becomes the more admirable when one realizes that upon her own slender shoulders, Dr. Morton took the task of assuring a quarter million dollars that the opportunities of education might not be denied "her" children, that she might fulfill the promise made a dying old man while under the emotional stress of ministering to hundreds of maimed and crippled victims of the last great war.

Dr. Morton's life has been filled with a wealth of stimuli, all contributing to that education which she advocates. She writes engagingly, knows which part of the profusion of incidents that have characterized her experiences to leave in, which to leave out. The training of the physician which insists that all minutiae be noted, the intuition of woman which knows without being told, the culture of a cosmopolite, all these contribute to the pleasure which her story offers the reader. The humorous incidents which inevitably occur in a life such as hers have been skillfully preserved. For example, she chased the devil from a Ceylonese peasant girl by the simple expedient of pouring cold water over her head. And adds immeasurably to the exquisiteness of her account by recording the fact that the girl steeped only in primitive superstition insisted that she had been cured by a miracle! As if cold water might provoke a miracle in Ceylon or in New York. In her native Virginia, in the whirl of Capital society, amid teeming metropolitan slums, amid the self-abnegation of cast ridden India, in the culture of the great centers of prewar graduate medical instruction, in the bare living quarters of Tolstoi or in the cozy study of Ibsen, wherever she went Rosalie Morton took with her exceptional powers of observation, took away vivid recollections which she committed to paper with graceful charm.

Women may well be proud of the part she has played in the world. They may find splendid substance in their campaign against war in the graphic pictures she draws of the horror, the desolation, the stark brutality

of it all. And in the disintegration of personal character, in the dissoluteness of society as erstwhile war heroes seek to return to a mode of existence that has no further use for them. Her analysis of the social situation, of the dilemma of both the individual and society, are worth the thoughtful perusal of any citizen.

Dr. Morton's life once more proves the capacity of women in a world of men. As a surgeon, perhaps because of small deft hands, she seems to have been outstandingly successful. As a publicist and organizer, as a financier, as a diplomat she earned a place of high esteem. And to this record of accomplishment must be added extraordinary ability as a forceful writer.

It is not too much to hope that "A Woman Surgeon" will shortly find itself in the best seller class. It is deserving of wide distribution on account of its literary style. When this is utilized to convey a picture of the fulsome life of a woman who accomplished so much in a world of men a delightful experience is vouchsafed the reader. One might even go on to hope that Dr. Morton will take time to write a book devoted to the exposition of her social philosophy, to giving a fuller understanding of those powerful elemental forces that motivate existence, a task for which her preferences, her training, indeed one for which her whole life so well fits her.

B. Y. G.

There is, perhaps, no one so well qualified to give advice on what field not to enter as the man already in that field. Hence it is not surprising that the Professor of Journalism at Columbia University should advise youth and middle age against the overcrowded field for which he seeks to prepare them. Yet the journalist is vouchsafed the unique opportunity of seeing the world, both in its cosmopolitan and in its individual aspects. To him is vouchsafed the privilege of seeing men and women and children at play, at work, at leisure, of seeing them emotionally stirred by the clever propaganda of selfseekers, of seeing them overcome by the ghastly awfulness of disaster, of seeing them in their ceaseless efforts to wrest a living from nature and from the machine. The inherent requirement of being a reporter imposes such a necessity. Hence, it is to be expected that even a professor of journalism can have something worthwhile saying. And that he can say it attractively goes without saying.

Walter B. Pitkin, whose "Life Begins at Forty" evoked much comment and many sales, contributes a new volume telling what to do in this new life. It is called "Careers After Forty" (McGraw-Hill Book Co., New York). It is based upon twelve years of study devoted to the effort of making the round and square pegs of which contemporary civilization is composed just the size and shape to fit into the square and round holes waiting for them. For there is no question, Professor Pitkin assures us, that there are today more opportunities than ever before to round out our lives into useful, social wholes. He would see bigger and better machines built; he would use them for every possible task. He would extend the uses of electricity so that there would be no peak loads, so that rates would automatically be lowered because the utilities instead of being strained for a few hours a day would be required to step up output to meet the increased demand for the vibrant stuff.

In personal service, the author writes, the individual now out of a job, or earning only a poor living at one, can gain satisfaction for himself, a living for his family and contribute mightily to the social welfare. He contributes enough examples of ordinary men and women who have succeeded in capitalizing upon a limited num-

ber of personal skills to make his book convincing. On the whole the new job should be one which takes advantage of technical training acquired in youth. It should be carried on in the home town of the individual instead of in the proverbial distant and seemingly greener pasture. A new kind of candy, a new kind of automobile service station, a new kind of travel tour, a new kind of anything that has never been well or properly done in one's town before. But above all, in choosing a new career, stick to that type of work which will give personal service to the folks living about you. A lawyer, for example, starving in a large office building, might do well, and often has, were he to establish a neighborhood counselling service. Renters would ask him to look over the leases which high-handed landlords insisted they sign. Small-salaried clerks, who would not otherwise consider it, would ask him to prepare a will or execute another of the host of legal documents which the average man so often contemplates but never does. This neighborhood lawyer might even come to serve as a sort of unofficial arbiter of householder's disputes, save the expense and inconvenience and embarrassment of the more formal legal tribunals to which grievances are sometimes referred.

Pitkin has written a readable book. He has performed a useful social service. This volume should stimulate a few of the dissatisfied to carve for themselves new careers, whether they be 20 or 40; it will show them the way to new living and to new satisfactions. But in Chapter V, Pitkin gets away from his theme, departs from that vital inspiring consideration of the problem of the individual to offer his remedy, a sort of panacea for the economic ills of mankind. He seemingly would depend upon a sort of technocratic application of the laws of money and credit; its a little too complicated for the reviewer and has no place in this book. It would have been so much better had he stuck to his central theme throughout. But he returns to it when he writes on the very last page, "The open road goes on and on . . . It is only men who lose strength or spirit. . . . But all those stouter spirits pick up their packs before dawn and trudge on whistling. . . . So march . . . into the twilight and take fresh courage from the everlasting stars."

B. Y. G.

"PILOT ERROR" AND OXYGEN WANT, WITH DESCRIPTION OF A NEW OXYGEN FACE TENT

Alvan L. Barach, New York (Journal A. M. A., May 29, 1937), warns that oxygen want is capable of producing mental impairment and certain physiologic alterations at altitudes at which transcontinental commercial flying now takes place. These disturbances in function of the human organism, induced by a reduced tension of oxygen in the tissues, are aggravated by certain forms of fatigue neurosis. Pilots are apt to develop a characteristic form of fatigue psychoneurosis called aeroneurosis. The combined effect of slight impairment of mental functioning induced by moderate anoxia and overt or latent aeroneurosis may become an influential factor in pilot error. Safety in airplane travel may be increased by a recognition of these factors and a prompt application of suitable methods of preventing them by the adoption of compulsory oxygen inhalation for pilots flying at altitudes at or above 10,000 to 12,000 feet. The author describes a simple oxygen face tent which is practicable, efficient and comfortable. It appears to be a suitable method of oxygen inhalation for pilots, as well as being applicable to the treatment of oxygen want in clinical disease.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November
27, 1936.

Chariton County Medical Society, Decem-
ber 1, 1936.

Ste. Genevieve County Medical Society,
December 15, 1936.

Dent County Medical Society, January 8,
1937.

Lincoln County Medical Society, February
16, 1937.

Benton County Medical Society, February
26, 1937.

Moniteau County Medical Society, March
29, 1937.

Barry County Medical Society, May 14,
1937.

Camden County Medical Society, May 14,
1937.

Morgan County Medical Society, May 14,
1937.

MISSOURI STATE MEDICAL ASSOCIATION

Eightieth Annual Session

Cape Girardeau

May 10, 11, 12, 1937

MINUTES OF THE HOUSE OF DELEGATES

Southeast Missouri State Teachers College,
Monday, May 10, 1937

Morning Session

The first meeting of the House of Delegates of the
Eightieth Annual Session of the Missouri State Med-
ical Association, held in Academic Hall of Southeast
Missouri State Teachers College, Cape Girardeau, was
called to order at 10:00 a. m., Monday, May 10, by the
President, Dr. Ross A. Woolsey, St. Louis.

At roll calls 108 officers and delegates responded as
follow:

Officers

President..... Ross A. Woolsey, St. Louis

President-Elect... Dudley S. Conley, Columbia

Vice Presidents .. { A. H. Marshall, Charleston
James E. Stowers, Kansas City
E. Y. Pare, Leeton

Assistant Secretary E. H. Bartelsmeyer, St. Louis

Councilors

2nd District..... W. T. Elam, St. Joseph

4th District..... A. S. Bristow, Princeton

6th District..... J. S. Gashwiler, Novinger

7th District..... W. D. Pipkin, Monroe City

8th District..... Frank G. Mays, Washington

9th District..... A. R. McComas, Sturgeon

13th District..... E. P. Heller, Kansas City

15th District..... L. J. Schofield, Warrensburg

16th District..... C. W. Luter, Butler

17th District..... Guy Titsworth, Sedalia

18th District..... W. L. Allee, Eldon

19th District..... J. S. Summers, Jefferson City

20th District..... Curtis H. Lohr, St. Louis
(Delegate)

22nd District..... B. W. Hays, Jackson

24th District..... T. W. Cotton, Van Buren
(Delegate)

26th District..... W. H. Breuer, St. James

27th District..... Leslie C. Randall, Licking
(Delegate)

28th District..... W. M. West, Monett

29th District..... R. M. James, Joplin

30th District..... R. B. Denny, Creve Coeur

31st District..... H. A. Lowe, Springfield

Delegates

COUNTY

DELEGATE

Adair-Schuyler-

Knox-Sullivan... J. J. Wimp, Kirksville

Audrain..... P. E. Coil, Mexico

Barry..... L. H. Ferguson, Monett

Bates..... E. E. Robinson, Adrian

Boone..... M. Pinson Neal, Columbia

Buchanan..... H. W. Carle, St. Joseph

Buchanan..... F. H. Spencer, St. Joseph

Butler..... J. Lee Harwell, Poplar Bluff

Callaway..... J. E. Mulkey, Fulton

Cape Girardeau... C. A. W. Zimmermann,
Cape Girardeau

Carter-Shannon... T. W. Cotton, Van Buren

Cass..... L. V. Murray, Pleasant Hill

Chariton..... J. W. Hardy, Sumner

Clay..... J. H. Howell, Excelsior Springs

Clay..... N. R. Schuhmacher, Kearney

Cole..... H. S. Gove, Jefferson City

Dent..... F. E. Butler, Salem

Dunklin..... E. L. Spence, Kennett

Franklin..... L. F. Howe, Union

Greene..... Paul F. Cole, Springfield

Greene..... W. S. Sewell, Springfield

Howard..... W. A. Bloom, Fayette

Howell..... A. H. Thornburgh, West Plains

Jackson..... Morris B. Simpson, Kansas City

Jackson..... B. Landis Elliott, Kansas City

Jackson..... E. Lee Miller, Kansas City

Jackson..... Herbert L. Mantz, Kansas City

Jackson..... John E. Castles, Kansas City

Jackson..... Ralph R. Wilson, Kansas City

Jackson..... James R. McVay, Kansas City

Jackson..... Julius Frischer, Kansas City

Jackson..... Herbert J. Rinkel, Kansas City

Jackson..... Ralph E. Duncan, Kansas City

Jackson..... Lawrence Jones, Kansas City

Jackson..... Ira H. Lockwood, Kansas City

Jefferson..... Karl V. McKinstry, DeSoto

Johnson..... E. Y. Pare, Leeton

(Vice-President)

Lafayette..... E. L. Johnston, Concordia

Lawrence-Stone... H. L. Kerr, Crane

Lawrence-Stone... L. M. Lyons, Pierce City

Linn..... M. L. Diekroeger, Marceline

Marion-Ralls.... J. W. Hardesty, Hannibal

Marion-Ralls.... H. B. Goodrich, Hannibal

Mercer..... A. S. Bristow, Princeton

Mississippi..... A. H. Marshall, Charleston

Moniteau..... E. A. Kibbe, California

Nodaway..... W. R. Jackson, Maryville

Pemiscot..... W. R. Limbaugh, Hayti

Perry..... J. J. Bredall, Perryville

Pettis..... A. J. Campbell, Sedalia

Phelps-Crawford.. R. E. Breuer, Newburg

Phelps-Crawford.. A. H. Horne, Steelville

Pike..... T. G. Hetherlin, Louisiana

Pulaski..... C. Mallette, Crocker

Randolph-Monroe.. M. C. McMurphy, Paris

St. Charles.....R. G. Cooper, St. Charles
 St. Francois-Iron
 Madison-
 Washington-
 Reynolds.....W. H. Barron, Fredericktown
 Ste. Genevieve.....A. E. Sexauer, Ste. Genevieve
 St. Louis.....Elmer O. Breckenridge,
 Maplewood
 St. Louis.....Eugene R. Brown, St. Louis
 St. Louis.....C. P. Dyer, St. Louis
 St. Louis.....Otto Koch, St. Louis
 St. Louis City....Robert E. Schlueter, St. Louis
 St. Louis City....Clinton W. Lane, St. Louis
 St. Louis City....Theo. H. Hanser, St. Louis
 St. Louis City....R. Emmet Kane, St. Louis
 St. Louis City....Francis Reder, St. Louis
 St. Louis City....Anthony B. Day, St. Louis
 St. Louis City....Philip S. Luedde, St. Louis
 St. Louis City....Jerome E. Cook, St. Louis
 St. Louis City....E. R. Rice, St. Louis
 St. Louis City....A. J. Kotkis, St. Louis
 St. Louis City....Victor Scherman, St. Louis
 St. Louis City....Carl F. Vohs, St. Louis
 St. Louis City....Leo J. Hartnett, St. Louis
 St. Louis City....R. O. Muether, St. Louis
 St. Louis City....Jerome I. Simon, St. Louis
 St. Louis City....Wm. G. Becke, St. Louis
 St. Louis City....Vincent L. Jones, St. Louis
 St. Louis City....M. J. Pulliam, St. Louis
 St. Louis City....Lee D. Cady, St. Louis
 St. Louis City....Curtis H. Lohr, St. Louis
 Saline.....L. S. James, Blackburn
 Scott.....E. J. Nienstedt, Blodgett
 Texas.....Leslie C. Randall, Licking
 Vernon-Cedar....J. W. Dawson, Eldorado Springs
 Vernon-Cedar....T. R. Frazer, Nevada

On motion of Dr. W. T. Elam, St. Joseph, the reading of the minutes of the previous meeting was dispensed with and adopted as printed in *THE JOURNAL*.

The President, Dr. Ross A. Woolsey, St. Louis, read his message and recommendations as follow:

PRESIDENT'S MESSAGE AND RECOMMENDATIONS

I welcome this opportunity to greet the members of the House of Delegates in Cape Girardeau. You have been selected to present to this body the opinions and recommendations of your respective societies. In considering our problems we must establish definite policies as a guide for our component societies. Our delegates to the American Medical Association will then carry to that body such of these established policies as affect our profession as a whole.

Let the members of the House, both old and new in point of service, feel free to discuss all the problems before us within reasonable parliamentary bounds. To expedite the business sessions the reports of officers and various committees have been printed in pamphlet form and mailed to all the delegates. As in all organizations of similar character a great portion of the work of the House must be done in committees. All reports, except those adopted as presented, will be referred to proper reference committees or the Council for report and final action by the House. The reports as submitted contain much food for thought and intelligent action by the Delegates. Let me urge that you follow the reports of special interest to you to the reference committees and feel free to discuss them in committee so thoroughly that when final action is taken by the House, you can report to your society such action represents the real opinion of this body. I can assure you that the reference committees appointed will welcome your views. The time and place of these

committee meetings will be announced by the respective chairmen before the close of the morning's session. I hope all committees will be able to present their reports as completely as possible at the afternoon session beginning at 4 p. m. for consideration and action by the Delegates.

In scanning the committee reports I have been and I know you are too, greatly impressed with their contents. All have labored earnestly and are entitled to commendation. I shall mention only one or two phases of our work. The Committee on Maternal Welfare in cooperation with the State Board of Health and the Children's Bureau, Washington, D. C., have conducted throughout the state what have been termed Refresher Courses in Obstetrics and Pediatrics. This program has been available to every member of our Association and eligible nonmembers. Other programs on these topics have been made available to lay audiences. The continuation of similar programs depends largely upon the action of the House. I am sure you will take enthusiastic favorable action.

Concerning Public Health Education I am impressed with the work of our Committee on Public Health and Instruction (the McAlester Foundation) and the Committee on Cancer in cooperation with the Committee on Postgraduate Work in the matter of presenting health educational programs to lay audiences. Even during this session you will find individual committee members continuing their work by addressing high school students and clubs as well as a public meeting to be held in this Auditorium on Tuesday evening. I urge every member of this House to attend the Tuesday evening session.

The reports of the Committee on Medical Economics and the Committee on Maternal Welfare recommend that a survey of our state be made to ascertain the medical and hospital facilities available in the respective counties of rural Missouri and that this be done by the State Board of Health in cooperation with our Association. In particular we want to know if rural sections in Missouri are suffering from a lack of available medical service. If so, what are they and what are the conditions responsible for such deficiency? Such a survey would make known to us definite facts which would guide us in planning future programs for medical care, hospitalization as well as educational publicity, both professional and lay. I have been assured that the State Board of Health will lend every effort toward the accomplishment of our purpose. I am also assured of the complete cooperation of the Bureau of Medical Economics of the American Medical Association. I trust this recommendation will merit your favorable consideration.

The work of our other committees will be reflected in the reports of the reference committees to which such reports have been referred.

A request has been made by Dr. Thomas Parran, Surgeon General, Treasury Department, Public Health Service, that our Association appoint a committee to advise with the Commissioner of Health of our State and the United States Public Health Service regarding a syphilis control program in Missouri. The duty of the committee would be in general (a) to review the available information on the syphilis problem, (b) cooperate in assembling necessary additional information covering the nature and extent of the facilities which now exist for the diagnosis, treatment and public health control of syphilis, and (c) recommend such supplemental and new state or local facilities and measures as seem desirable in dealing with this infection which is nation wide in its importance and distribution. I quote excerpts from an editorial appearing in the *Journal of the American Medical Association* of February 6, 1937. "The situation as to syphilis today is analo-

gous to that of tuberculosis a generation and a half ago. Much of the progress that has been made in the control of tuberculosis is due to the widespread and constant educational publicity given to this disease. Informative publicity concerning syphilis is a valuable method, perhaps the most valuable method, of aiding in the two fundamental points of public health control efforts: (1) Finding patients with syphilis and bringing them under competent medical care and (2) holding them under treatment for a long enough period to ensure the maximum result as to individual and public safety. Informative publicity to the lay public should (a) avoid the implication of reform of public morals by legislative fiat and should stress the medical aspects of the control program, (b) be scientifically sound and accurate and (c) be prolonged over a period of many years.

"... Success in the campaign to control syphilis cannot be attained in a year or two or even in five or ten years. Success, if it comes at all, is to be measured in the same long terms as in the campaign to control tuberculosis—a generation, two generations. What is needed is not a flood of publicity for a few months or years but persistent publicity for many years. Syphilis must be kept as constantly in the public mind as tuberculosis has been kept, and for as long a time.

"... The Advisory Committee to the United States Public Health Service has recognized that there would be difficulties facing the educational campaign. 'It is recognized,' said the committee, 'that much may be done to improve this material and to direct it more specifically to the people in need of advice. It would be of great assistance if the Public Health Service were to carry out a thorough study of public health educational programs and methods. Such a study should include the usefulness of the radio, the press, motion pictures, pamphlets and posters, lectures, exhibits, and other methods in the educational program. There is now a wealth of practical experience in the use of these media in general, but little accurate knowledge of the principles, practices and results of popular education pertaining to the venereal diseases.' This study should be conducted by recognized experts in the field of publicity. Pending the result of such a study, it would be well if the publicity campaign could be more closely guided by the two most competent and appropriate medical agencies, the American Medical Association and the United States Public Health Service. The foundations must be built slowly, accurately and firmly. This will prevent the development of a shaky superstructure that will collapse under our feet."

Undoubtedly many questions will arise which will need careful consideration from the viewpoints of both the physician in each local county and the health officer. Following similar actions taken by neighboring state associations, I recommend the appointment of a special Committee for the Study of the Control of Syphilis in Missouri, to consist of five members; two members to be appointed for a term of three years, two for a term of two years and one for a term of one year.

Dr. Eddie Goodwin, our Secretary and Editor, is not with us today. I felt the daily transfer from hotel to this auditorium might unduly tax his physical condition and it was at my suggestion that he remained in St. Louis.

In this connection I want to commend the efficiency and competency of the personnel of the headquarters office staff. I have been in almost daily personal contact with the members of our office force and I know that the duties of our Assistant Secretary and Business Manager are in capable hands. Mr. Bartelsmeyer's work reflects wise and capable management.

I thank each and every member of the House of Delegates for your assistance during the last year and for having made possible this, one of my happiest experiences.

On motion of Dr. W. T. Elam, St. Joseph, duly seconded, the message was referred to the Council.

The President appointed the following reference committees:

Reference Committee on Amendments to Constitution and By-Laws

M. Pinson Neal, Columbia, Chairman.
B. Landis Elliott, Kansas City.
Clinton W. Lane, St. Louis.

Reference Committee on Resolutions

Frank G. Mays, Washington, Chairman.
T. G. Hetherlin, Louisiana.
Anthony B. Day, St. Louis.

Reference Committee on Medical Education and Public Welfare

E. L. Johnston, Concordia, Chairman.
James R. McVay, Kansas City.
Jerome E. Cook, St. Louis.

Reference Committee on Miscellaneous Affairs

W. R. Limbaugh, Hayti, Chairman.
J. J. Bredall, Perryville.
A. H. Thornburgh, West Plains.

Dr. B. W. Hays, Jackson, Chairman of the General Committee on Arrangements, reported as follows:

REPORT OF THE GENERAL COMMITTEE ON ARRANGEMENTS

Your General Committee on Arrangements has a comparatively easy job. Happily, we came to the Southeast Missouri State Teachers College and met Dr. Parker whom we found most receptive, cordial and cooperative; he was willing to do more than we asked. This wonderful hall with its fine acoustic qualities was turned over to us; the sculpture exhibit was pushed back to make room for our exhibits. Dr. Shelby of the local committee has really done the work and he will be able to make a better report than I can on local matters.

On motion, duly seconded, this report was adopted.

Dr. M. H. Shelby, Cape Girardeau, Chairman of the Local Committee on Arrangements, reported as follows:

REPORT OF THE LOCAL COMMITTEE ON ARRANGEMENTS

As secretary of this county society and chairman of the Local Committee on Arrangements, I want to add my word of welcome to those of our president, Dr. Hays. I trust that this meeting of the Missouri State Medical Association will be the happiest as well as the most profitable that you have ever attended. I can assure you that the aim of the Committee has been to leave nothing undone that will contribute to your comfort and to the success of this meeting. I will make a few announcements in regard to luncheons, etc., that will take place in the next two or three days.

The Maternal Welfare Dinner will be on Monday evening at 6 o'clock at the Marquette Hotel.

The Eye, Ear, Nose and Throat men will have luncheon at the Marquette Hotel on Tuesday.

The Washington University Alumni luncheon will be held at the Idan-Ha Hotel Tuesday.

The Missouri University Alumni luncheon will be held at the Colonial Tavern on Tuesday.

The Phi Beta Pi banquet will be given at the Colonial Tavern at 6 o'clock on Tuesday.

The members of the Association are invited by the curator of the museum of the college to visit it and see the collection of Indian relics and fossils. They have one of the finest exhibits of Indian relics in existence and you are urged to see the collection.

The ladies have various luncheons and dinners that will be found on their program.

Tuesday night there will be a stag smoker at the Cape Girardeau Country Club at 9:30, immediately following the open meeting. The Cape Girardeau County Medical Society will act as host and you are all urged to attend. I believe that is all. We are glad to have you here.

On motion, duly seconded, this report was adopted.

Dr. Ross A. Woolsey, St. Louis, President: The reports of the various committees have been furnished the Delegates in pamphlet form. These, in some cases, will be supplemented by the chairmen.

The report of the Secretary, Dr. E. J. Goodwin, St. Louis, follows:

REPORT OF THE SECRETARY

Reports of the various committees will encompass a great deal of the work of the Association. Each committee has been diligent during the year and has accomplished work of which we are very proud.

The Association has cooperated with the State Board of Health during the year much more closely than in years past. One phase of the work of the Board in which the Committee on Maternal Welfare and the headquarters office have been active is the Refresher Courses in Obstetrics and Pediatrics. These are being conducted as a part of the work in Child Welfare under the Social Security Administration. The entire state will be covered by a series of lectures in each subject. Arrangements for these lectures have been made through the Councilors who have given splendid cooperation.

Work in lay education has been greatly increased during this year. Both the Committee on Cancer and the Postgraduate Committee in cooperation with the McAlester Foundation have done splendid work in placing information on cancer and appendicitis before the public.

During the year various counties have brought problems to the headquarters office for assistance in solving. In several cases we feel that we have been of aid, in others we have been less successful. However, the Association is for the use of the members and we will always do our best for any member or component society.

On January 29, following the action of the Board of Trustees of the American Medical Association, letters were sent to Congressmen and Senators advocating the consolidation of all activities of the Federal government dealing with promotion of health and prevention of disease in a single department; this department to be in the hands of a competently trained physician and not subservient to any other department.

Our President was called upon to appoint a Councilor of the 27th District to fill the unexpired term of the late Dr. J. C. B. Davis, Willow Springs. He appointed Dr. Leslie C. Randall, Licking. Dr. Davis was also chairman of the Publication Committee and Dr. Woolsey appointed Dr. Walter Baumgarten, St. Louis, who was a member of the Committee to the chairmanship, and Dr. Buford G. Hamilton, Kansas City, as a member of the Committee.

The President appointed an Advisory Committee to the Committee on Cancer following instructions of the Council. He appointed the following: Drs. D. K. Rose, Wm. H. Vogt, Q. U. Newell, St. Louis; M. Pinson Neal, F. G. Nifong and D. S. Conley, Columbia; Ralf

Hanks and T. S. Lapp, Fulton; S. V. Bediord, Jefferson City; Robert Koritschoner, E. Kip Robinson and David S. Dann, Kansas City; Wallis Smith and H. A. Lowe, Springfield; C. A. W. Zimmermann, Cape Girardeau; J. S. Gashwiler, Novinger; E. A. Oliver, Richland; F. L. Martin, Nevada; A. M. Gregg, Joplin; H. J. Ravold and Floyd Spencer, St. Joseph.

The Nominating Committee must submit nominations for the following offices:

Three vice presidents to fill the vacancies created by the expiration of the terms of Drs. A. H. Marshall, Charleston; James E. Stowers, Kansas City, and E. Y. Pare, Leeton.

The terms of the Councilors in the even numbered Districts expire this year and the committee must nominate members to fill the vacancies in these districts.

Two delegates to the American Medical Association must be nominated to fill the vacancies created by the death of Dr. E. P. North, St. Louis, and the expiration of the term of Dr. James R. McVay, Kansas City.

The Association will be host to the secretaries of the component societies at a dinner Tuesday evening, May 11, at 6 o'clock at the Idan-Ha Hotel.

The Cape Girardeau County Medical Society will be host at an entertainment to the members at the Cape Girardeau Country Club on Tuesday evening following the public meeting.

The scientific and commercial exhibits in the lobby of the State Teachers College are well worth attention and study and I hope all members will visit them.

In 1936 there was a gain of sixty-two members. In 1935 there was a gain of twenty-nine and in 1934 of seventeen.

Status of Membership

Number of members, January 1, 1936	3155
New members	189
Reinstated	15
Total	3359
Dropped	52
Deceased	63
Transferred	27
Total, January 1, 1937	3217

Of this total 192 are Honor Members.

E. J. GOODWIN, Secretary.

On motion, duly seconded, the report of the Secretary was referred to the Council.

The report of the Treasurer, Dr. John R. Caulk, St. Louis, Chairman, follows:

REPORT OF THE TREASURER

The financial status of the Association as of December 31, 1936, was published in detail in the April, 1937, issue of THE JOURNAL. I have brought down the figures of receipts and expenditures since the first of January, 1937, to and including April 30, 1937. These figures show the sums in the various funds as follows:

General Fund

Receipts	
Balance, Dec. 31, 1936 .. \$	2,186.06
Membership dues collected	14,838.00
Annual Session—	
Exhibit space	245.00
Medical Protective Co. (rent)	180.00
Subscriptions (nonmembers)	16.75
JOURNAL advertising ...	2,690.96
Sales tax	4.24
Expense refunds	15.01
Total	\$20,176.02

Disbursements	
Vouchers paid	\$10,226.16
Transferred to Legisla- tive Fund	1,903.00
Total	12,129.16
Balance April 30, 1937	\$8,046.86

Legislative Fund

Receipts	
Balance, Dec. 31, 1936 ..\$	3,511.69
Transferred from Gen- eral Fund	1,903.00
Total	5,414.69

Disbursements	
Transferred to Defense Fund	1,400.00 1,400.00
Balance April 30, 1937	4,014.69

Defense Fund

Receipts	
Balance, Dec. 31, 1936 \$	911.76
Transferred from Legis- lative Fund	1,400.00
Total	2,311.76

Disbursements	
Vouchers Paid	\$ 741.00 \$ 741.00
Balance April 30, 1937	\$1,570.76

Sinking Fund

Balance, Dec. 31, 1936,	
and April 30, 1937 ...\$	3,289.00 \$3,289.00

These figures show that there was a balance of \$9,-898.51 on hand January 1, 1937, and receipts from membership dues, advertising and other sources of income amounted to \$17,989.96. During the period January 1 to April 30, 1937, there was disbursed by vouchers properly endorsed and signed by the officers, \$10,967.16. This leaves the financial status at April 30, 1937, as follows:

General Fund	\$ 8,046.86
Legislative Fund	4,014.69
Defense Fund	1,570.76
Sinking Fund	3,289.00
Total	\$16,921.31

JOHN R. CAULK, Treasurer.

The report of the Treasurer was referred to the Council.

The report of the Committee on Scientific Work, Dr. E. J. Goodwin, St. Louis, Chairman, follows:

**REPORT OF THE COMMITTEE ON
SCIENTIFIC WORK**

The Committee on Scientific Work has prepared a program which it feels will be of value to all members. Stress was placed especially on material valuable to the general practitioner but the program was not restricted to such presentations. The Committee was forced to decline several excellent papers to avoid crowding the program to the exclusion of discussions.

Three guest speakers have been invited: Dr. Norman

F. Miller, Ann Arbor, Michigan, Professor of Obstetrics and Gynecology, University of Michigan Medical School; Dr. A. E. Hertzler, Halstead, Kansas, Professor of Surgery, University of Kansas School of Medicine, and Dr. Herman E. Pearse, Jr., Rochester, New York, Assistant Professor of Surgery, University of Rochester School of Medicine. Dr. W. W. Parker, Cape Girardeau, President of the Southeast Missouri State Teachers College, will present a short address of welcome.

"Cancer" and "Appendicitis" will be discussed at a public meeting at the Southeast Missouri State Teachers College on Tuesday evening, May 11. The Postgraduate Committee has cooperated by arranging for several addresses on "Appendicitis" to lay groups such as high school and college students and civic clubs in Cape Girardeau during the Annual Session.

E. J. GOODWIN, Chairman,
J. E. STOWERS,
W. T. COUGHLIN.

On motion, duly seconded, the report of this Committee was adopted.

The report of the Committee on Postgraduate Work, Dr. C. H. Neilson, St. Louis, Chairman, follows:

**REPORT OF THE POSTGRADUATE
COMMITTEE**

The Postgraduate Committee is happy to report that work during the last year has doubled in every respect the work of the previous year and in some regards has tripled it. From April 1, 1936, to April 15, 1937, the number of members who delivered addresses under the auspices of the Committee was 90, the number of meetings addressed was 85 and the number of counties participating was 26. For the previous year these statistics were: Number of speakers, 41; number of meetings addressed, 21, and the number of county societies participating, 11. This work has been carried on at a cost of \$509.05 as compared with \$332.38 the previous year.

About a year and a half ago at a meeting of the Council, Dr. M. Pinson Neal, Columbia, suggested that the Postgraduate Committee should occupy itself with a study of a definite subject and put this subject before the people of Missouri and the medical profession. The subject suggested by Dr. Neal was "Appendicitis." For more than a year no definite plans were carried out. However, commencing in December of last year, Dr. Neal, member of the Postgraduate Committee, and Dr. E. Lee Miller, Kansas City, representing the Committee on Health and Public Instruction (McAlester Foundation), together with the other members of the McAlester Foundation, began this work and programs have been presented in the following places: Novinger, Mexico, Fulton, Jefferson City, Marshall, Washington, Safe, Linn, Lebanon and Sedalia. Members who have taken part in these presentations are: Drs. M. Pinson Neal, Frank G. Nifong and Dudley S. Conely, Columbia; A. R. McComas, Sturgeon; W. H. Breuer, St. James; H. A. Lowe, Springfield; E. Lee Miller and Eugene P. Hamilton, Kansas City; Wm. J. Gallagher, Alphonse McMahon, C. H. Neilson, Ross A. Woolsey and Lee Pettit Gay, St. Louis.

These programs on appendicitis serve a two-fold purpose. They are for the instruction of lay people and the principle point of contact has been high school and college students who have been instructed in regard to appendicitis as it affects their health. In the evening of the same day the doctors have been called together and a scientific program has been given on appendicitis including relationship to personal and public health. There has been an enthusiastic response

in all places where programs have been given. The Councilors in the various districts have worked hard to place these programs before the people and they and their committees have done a good piece of work. Attempts have been made in some Councilor Districts where the response to this idea has not been as cordial as it might have been. Of course, we do not care to give such programs unless there is a unanimous verdict that it is desired. In some instances the response of the Councilor has been in full accord with our efforts but owing to a certain amount of inertia the plan has not come to fruition.

I wish to express my thanks to Dr. M. Pinson Neal, Columbia, member of the Postgraduate Committee, and to Dr. E. Lee Miller, Kansas City, Dr. A. R. McComas, Surgeon, and Dr. Frank G. Nifong, Columbia, members of the McAlester Foundation, for initiating and starting this work. I think we owe them a debt of gratitude.

The number of lay meetings on "Appendicitis" held to date is 31 with a total attendance of 9570, the smallest number reached in any town was 75 and 2545 the largest number. Six scientific meetings on "Appendicitis" have been held.

At present we have meetings arranged for the 12th Councilor District at Excelsior Springs, Liberty and Richmond; for the 8th Councilor District at St. Charles, and for the 25th District at Farmington and are arranging for one at Poplar Bluff. Addresses will be given before high school and college students and civic clubs in Cape Girardeau and vicinity during the present Annual Session.

C. H. NEILSON, Chairman,
M. PINSON NEAL,
REXFORD L. DIVELEY.

DR. C. H. NEILSON, St. Louis, Chairman: I am happy that the report of this Committee shows an increase in the work. The total number of requests for speakers has doubled and in some counties, trebled, showing that there was a lively interest in postgraduate work in the state during the last year.

A second part of the Committee's work dealt with "Appendicitis." More than a year ago Dr. M. Pinson Neal, Columbia, at a meeting of the Council, suggested that this Committee present this subject to physicians and the laity. For more than a year nothing was done by your Chairman, but within the last year Dr. Neal, a member of this Committee, and Dr. E. Lee Miller, Kansas City, a member of the McAlester Foundation, began work on this subject and put a fire under the rest of us. As a result meetings have been held which have reached 11,356 people with talks on "Appendicitis." Civic clubs, women's clubs, schools and the auxiliaries have become interested in this work and I have the utmost admiration for the work of these two men, to Dr. Neal for suggesting it, and Dr. Neal and Dr. Miller for carrying it out. The other members of the McAlester Foundation, Dr. A. R. McComas, Surgeon, and Dr. Frank G. Nifong, Columbia, and other members of the Association have assisted and some will speak in this city and vicinity during this Session. We will reach some thousands of people in this way. I think this work is valuable and should be continued. I wish to thank the men in the districts where these meetings have been held for their enthusiastic reception of the idea for without the local response it would have been impossible to put on these programs so successfully. Any Councilor who wishes to have this sort of program in their district will be aided in every way and speakers who know how to handle this subject before a lay audience will be sent to you.

This report was referred to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Publication, Dr. Walter Baumgarten, St. Louis, Chairman, follows:

REPORT OF COMMITTEE ON PUBLICATION

January 1, 1936, to January 1, 1937

The 33rd volume of THE JOURNAL was completed with the December issue. During 1936 there have been published in THE JOURNAL sixty-eight original articles, two special articles, sixty-five editorials, one hundred thirty-four news items, fifty obituaries, ninety-seven society proceedings, eleven Woman's Auxiliary reports, twenty-one miscellaneous articles, seventy-six book reviews and twenty-six commercial announcements. There were 458 pages of reading material and 344 advertising pages. There were 103 books received during the year for review in THE JOURNAL and distribution to medical libraries in the state.

Advertising in THE JOURNAL from January 1, 1936, to January 1, 1937, earned \$8,207.86, with \$485.96 to be collected, totalling \$8,693.82. Subscriptions of non-members amounted to \$42.75, making \$8,736.57 actually earned by THE JOURNAL. The cost of production of THE JOURNAL (printing and illustrations) was \$5,706.92.

WALTER BAUMGARTEN, Chairman,
BUFORD G. HAMILTON,
WILLIAM A. BLOOM.

DR. WALTER BAUMGARTEN, St. Louis, Chairman: I simply want to say that the credit for the work of this Committee should, of course, go to Dr. Goodwin and Mr. Bartelsmeyer. They are the ones who have brought about the situation as it is today.

I think it proper to refer to the unfortunate demise of the former chairman of this Committee, Dr. J. C. B. Davis, Willow Springs.

This report was referred to the Council.

DR. W. H. BREUER, St. James: In view of the long continued services of Dr. Davis on the Publication Committee and in the Association, I would suggest that this body stand in silence for one minute in memory of Dr. Davis.

The report of the Committee on Public Policy, Dr. W. L. Allee, Eldon, chairman, follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY

The idea of a General Hospital for the indigent, to be located at Columbia, Mo., was presented to the Council at their regular fall meeting and every member except one voted in its favor. Accordingly a bill was prepared providing for a 300 bed hospital for the indigent with a special wing for the treatment of cancer. This bill known as Senate Bill No. 3 was introduced by Senator Kinney in the present 59th General Assembly. After several hearings on this bill, the Senate Committee on Public Health reported the bill favorably "Do Pass." However several county societies objected to a general hospital for the indigent but practically all expressed themselves as favorable to a hospital for cancer so this bill was referred back to the Committee and a substitute bill was reported out being confined solely to a hospital for the treatment of indigent cancer patients which was advocated by the Governor in his inaugural address. The substitute bill was again heard in Committee and passed on favorably, and also passed the Senate. The House Committee after a hearing likewise also passed on this bill favorably and Tuesday, May 4, the House, with the

only one dissenting vote, passed the bill with the following amendments:

Amendment No. 1: Amend Committee Substitute for Senate Bill No. 3 by striking out the words "to be located at or near Columbia, Missouri."

Amendment No. 2: Striking out the same words, "at or near Columbia, Missouri," in the title of the same bill.

Amendment No. 3: Amend Committee Substitute Senate Bill No. 3, page 3, section 4, line 3, by adding after the period the following: "In the appointment of physicians and surgeons, there shall be no discrimination against members of any school of healing recognized as legally qualified physicians and surgeons by the State of Missouri."

Amendment No. 4: Amend Committee Substitute Senate Bill No. 3, page 8, section 13, lines 1 to 10 inclusive, by striking out all of section 13, lines 1 to 10 inclusive, and by inserting in lieu thereof the following: "That the Cancer Commission of the State of Missouri be empowered and directed to establish cancer clinics in counties and cities of the state on request of the county judges, or corresponding officials in the case of cities. All clinics are to be administered by committees appointed by the county judges or corresponding officials in the case of cities; these committees to have charge of the administrative details connected with their respective clinics, but in all cases they must conform with the minimum standards set by the Cancer Commission of the State of Missouri."

There were many other bills introduced that affect the medical profession in this State. Among some of the important measures are the following:

Senate Bill No. 2, introduced by Senator Cox, to repeal Section 13078 and enact a new section, applying to county hospitals; which provides that the county courts shall levy annual taxes sufficient to maintain and improve said hospitals. This bill passed both bodies of the General Assembly, and was signed by the Governor and is now a law.

Senate Bill No. 76, introduced by Senator Kinney, provides for liens in favor of public and charity supported private hospitals, and clinics and other institutions for the care of the sick, furnishing care, treatment and maintenance to persons injured by negligence or wrongful acts of others. This bill was introduced on Feb. 11 and was referred to the Senate Judiciary Committee, where the Bill has since remained; no action being taken on it.

Senate Bill No. 135, introduced by Senator Donnelly, amended Section 9113, Article 1, Chapter 53, Revised Statutes of Missouri, entitled "Medicine and Surgery." This bill provides that all persons desiring to practice medicine or surgery in this state appearing for examination shall be citizens of the United States, and able to read and write the English language. This bill was introduced on March 11 and referred to the Senate Public Health Committee, where it has since remained.

Senate Bill No. 90, introduced by Senator Kinney, repeals six sections of the present statute relating to surgical and medical treatment and hospital care of children who are afflicted with any deformity; it is the crippled children's bill. The act broadens the term of the present statutes which now confine the treatment to the State University Hospital for Crippled Children. This Act makes it possible for Federal funds to be allocated to other hospitals for the treatment of crippled children that may be approved by the Board of Curators of the University of Missouri. This bill not only complies with the Federal Social Security Statute, which allows Federal grants to states which have laws taking care of crippled children

but makes it possible to offer an enlarged service to the crippled children of our State.

House Bill No. 276 and Senate Bill No. 192, are both known as the "uniform narcotic Drug Act." House Bill No. 276 was introduced by Representative Kincaid of Clay County and was referred to the House Public Health Committee. There were many protests made to the Committee especially from retail druggists and several hospitals. The House Committee reported this Bill unfavorably "Do Not Pass" on March 4, and it has not since appeared on the House calendar. The House Committee was of the opinion that this bill was a duplication of Government regulations and that the Federal Act was being enforced in Missouri at this time. Following failure of the House Bill, at the request of the Governor, Senator Donnelly introduced Senate Bill No. 192, the same bill. It was referred to the Senate Committee on Public Health and after a hearing was reported favorably "Do Pass," and when it was reached for perfection in the Senate the author moved that it be placed on the Informal Calendar, where it still remains with no further action. It may be taken up at a later date for consideration.

House Bill No. 324, relating to sterilization of certain inmates of certain institutions of the state failed to pass.

Senate Bill No. 195 provides that the superintendent shall, in addition to being a physician, be skilled in the treatment of tuberculous diseases, and that he shall also have had at least five years experience as a physician or assistant physician in a hospital devoted to the treatment of tuberculosis. The bill was defeated by vote of 19 to 12.

Senate Bill No. 196 repeals the present act which provides that there shall be an examining physician selected by the Eleemosynary Board. This bill repeals that section and provides that an applicant shall be admitted by presenting a statement to the county court supported by a statement of his family physician. This bill passed by a vote of 28 to 2.

W. L. ALLEE, Chairman,
J. F. HARRISON,
W. H. BREUER.

That portion of the report dealing with the Cancer Hospital Bill was discussed by Drs. Robert E. Schluter, St. Louis; W. L. Allee, Eldon; R. Emmet Kane, St. Louis; Curtis H. Lohr, St. Louis; E. P. Heller, Kansas City; W. H. Breuer, St. James; James R. McVay, Kansas City; E. L. Spence, Kennett; A. R. McComas, Sturgeon; L. M. Lyons, Pierce City.

Dr. R. Emmet Kane, St. Louis, moved that a committee be appointed to draw up suitable resolutions covering the opinions of the Association on amendments 3 and 4 of Senate Bill No. 3, and the resolution when passed be transmitted to the proper committees of the Senate and House. This motion was seconded and carried and the following committee was appointed: Drs. R. Emmet Kane, St. Louis; Dudley S. Conley, Columbia, and A. R. McComas, Sturgeon. The committee was instructed to report immediately.

The report of the Committee on Defense, Dr. C. E. Hyndman, St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON DEFENSE

March 15, 1936, to April 15, 1937

Status of Cases

Cases pending March 15, 1936	18
Threats pending March 15, 1936	1
New cases (March 15, 1936, to April 15, 1937) ..	11
New threats (March 15, 1936, to April 15, 1937) ..	3

Cases settled (March 15, 1936, to April 15, 1937)	19
Threats which have been dropped	1
Cases pending April 15, 1937	10
Threats pending April 15, 1937	3
Financial assistance rendered (March 15, 1936, to April 15, 1937)	\$1,341.00

Of the eighteen cases settled during the year five were verdicts for the defendant, one was a verdict for the plaintiff, six were dismissed, one was withdrawn, three were settled without going to court, one resulted in a hung jury, and two were reported settled without the physician giving the disposition of the case. Financial assistance was given in six cases.

CHARLES E. HYNDMAN, Chairman,
M. L. KLINEFELTER,
O. B. ZEINERT.

The report of the Committee on Defense was accepted and referred to the Council.

The report of the Committee on Medical Education and Hospitals, Dr. L. W. Dean, St. Louis, Chairman, follows:

REPORT OF COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals investigated one hospital during the year. After a careful investigation the charge of unethical behavior was not substantiated. A report was made to the Executive Committee.

L. W. DEAN, Chairman,
C. A. GOOD,
CLAUDE J. HUNT.

The report of the Committee on Medical Education and Hospitals was accepted and referred to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Cancer, Dr. Ellis Fischel, St. Louis, Chairman, follows:

REPORT OF COMMITTEE ON CANCER

One of the functions of the Committee on Cancer of the Missouri State Medical Association is to promote the study of cancer in the State of Missouri. To this end the fourth year of the five-year plan was devoted to the subject "Cancer of the Rectum." A letter written to the secretaries of the county medical societies requesting that they cooperate with the Committee on Cancer to the extent of devoting one meeting of the society to a talk on cancer received only fair response. Seventeen meetings were sponsored by county societies with an approximate attendance (from twenty-five counties) of 413 physicians.

The Committee on Cancer held one meeting on November 4, 1936, for the purpose of formulating plans for the year's activities. At this meeting it was decided to ask members of the Missouri State Medical Association to contribute material to the cancer exhibit at the Annual Meeting at Cape Girardeau. Dr. T. S. Lapp, Fulton, consented to take charge of the exhibit. A news item was printed in THE JOURNAL of the Missouri State Medical Association in the March issue, asking members of the Association to contribute material.

An Advisory Committee composed of twenty-eight members from various parts of the state was formed to assist the Committee on Cancer to keep in closer touch with all districts of the state. This Advisory Committee was appointed by the Executive Committee of the Association in December, 1936.

The Committee on Cancer wishes to report the pro-

gressive step taken by the Greene County Medical Society. At a meeting in February a cancer committee was formed and Dr. L. M. Garner, Springfield, was appointed chairman of the committee. Dr. Garner, however, is leaving Greene County, and Dr. H. A. Lowe has been appointed to succeed him. It is hoped that other county medical societies will also see fit to establish committees on cancer with the ultimate aim to give consultation service to their local communities.

The tumor clinic at State Hospital No. 1, Fulton, is in its third year of operation under the direction of the Committee on Cancer. Dr. Dudley A. Robnett, Columbia, has contributed generously of his time as director of the clinic and Dr. T. S. Lapp, Fulton, has been the resident physician in charge. An average of nine patients were seen each clinic day and an average of ten new patients each month were admitted to the clinic. The number of far advanced cases reporting and the increasing demand for hospitalization are additional evidence that more cancer education is needed and that adequate facilities for the care of the indigent patients is also a vital need. The four beds now available for cancer patients at State Hospital No. 1 are woefully inadequate to meet the demand. The new hospital building is progressing as rapidly as weather will permit construction to go on and will probably be ready for occupancy about the first of September. The top floor of this hospital will be devoted to the care of cancer patients and will help to meet the demand for hospitalization of advanced cases.

Activities of the Tumor Clinic for the period March 1, 1936, to March 1, 1937, are as follows:

A total of ninety-one patients, residents of twenty-six counties, were admitted to the clinic as against fifty-five patients last year. Eighteen patients from the various state hospitals were included in this total. Patients admitted were residents of the following counties:

Adair	1	Johnson	2
Audrain	9	Lawrence	2
Barton	1	Marion	1
Boone	1	Miller	5
Callaway	13	Monroe	4
Chariton	1	Montgomery	3
Cole	1	Pettis	6
Cooper	1	Platte	1
Greene	2	Polk	1
Grundy	1	Ralls	8
Harrison	1	Randolph	1
Henry	1	Ray	2
Howard	2	Saline	2
Total	73		

State Hospital No. 1	5
State Hospital No. 2	11
State Hospital No. 3	1
Missouri State Sanatorium	1
	18

These patients made 263 visits to the clinic during the year and 123 radium treatments were given; 31 surgical excisions, 12 cautery excisions; 31 biopsies and 4 radical breast amputations were performed.

The Committee on Cancer wishes to take this opportunity to thank the members of the Eleemosynary Board, the superintendent and resident and consultant staffs of State Hospital No. 1 for the splendid cooperation in the work of the Tumor Clinic.

On December 31, 1936, your Chairman first learned of the proposal for a State General Hospital which had been presented by the Committee on Public Policy and approved at the regular meeting of the Council on

November 5, 1936, at Columbia. Your Chairman at once communicated with the Secretary of the State Association and the Chairman of the Public Policy Committee to learn whether this proposal had the endorsement of the State Medical Association. Upon being informed that it did, the Chairman of the Committee on Cancer proposed to the Chairman of the Committee on Public Policy that a special provision be made in the State General Hospital for care of cancer patients either through a separate wing or separate wards. This proposal was accepted and accordingly when the bill for establishment of a state general hospital was drafted, your Chairman was invited to assist in the drafting of that portion of the bill which related to care of the cancer patient.

On January 11, Governor Lloyd C. Stark, in his inaugural address, recommended that provision be made for the care of cancer sufferers in the State of Missouri. On January 15 a conference was held in Jefferson City to study the tentative bill for the State General Hospital. At this conference the Committee on Public Policy, the Committee on Cancer and the Council were represented. Your Chairman represented the Committee on Cancer. On January 20, Senate Bill No. 3, establishing a State General Hospital to be situated at Columbia, with special wards or a wing set aside for the cancer patients, was introduced in the Senate by Senator Michael Kinney. After several hearings before the Committee on Public Health, at which amendments were made, the Senate Bill No. 3 for a State General Hospital was approved by the Committee on Public Health and scheduled for the Senate calendar.

Due to much opposition to the bill by several county medical societies, the sponsors of the bill asked for further discussion and the bill was withdrawn from the Senate calendar and sent back to the Committee on Public Health. At the request of the Governor of the State of Missouri your Committee on Cancer prepared a rough draft of a substitute bill for Senate Bill No. 3 which was submitted to Governor Stark. At this meeting the Committee on Cancer was represented by your Chairman and Dr. Dudley A. Robnett, Columbia. The third member of the Committee, Dr. Earl C. Padgett, Kansas City, was unable to be present.

On March 10 the new bill called Committee Substitute for Senate Bill No. 3, which in its final draft provided not only for a state cancer hospital but also for cancer clinics to be established in the larger centers of population under direct control of the county medical societies with certain provisions for state aid, was reported favorably out of committee. Governor Stark issued an urgent appeal for the passage of the bill and on March 29 the bill was perfected. On April 8, 1937, Committee Substitute for Senate Bill No. 3, was passed by the Senate.

Another function of the Committee on Cancer, to cooperate with the American Society for the Control of Cancer and other ethical organizations for cancer control to the end that authentic information in regard to diagnosis and treatment of cancer be properly disseminated throughout the State of Missouri, has been most successfully and effectively carried out this year with the assistance of the Women's Field Army of the American Society for the Control of Cancer which was organized this year under the guidance of the medical authorities in each state. Preparatory to the enlistment drive which took place from March 21 to 27, a great many requests were received by the Committee on Cancer to supply speakers to lay audiences. These requests were filled by asking members of the Missouri State Medical Association in various parts of the state to give talks on cancer. One hundred and fifty lay meetings were held with an approximate attendance of

17,000 persons. The office of the Missouri State Committee of the American Society for the Control of Cancer contributed literature and an outline of a talk suitable for lay audiences to speakers who requested it. Approximately 50,000 pamphlets on cancer were distributed at these meetings. Eighty-three physicians participated in this work by preparing and delivering talks on cancer at these meetings.

Final authority for all educational activities of the State Division of the Women's Field Army is invested in the Executive Committee, composed of the State Commander and the Committee on Cancer. Your Committee on Cancer has insisted that no meeting be held without consent of the local county medical society and that none of the medical aspects of cancer be discussed by other than members of the Missouri State Medical Association.

The Committee on Cancer wishes to thank all the doctors who assisted in this work, and also wishes to thank the many county medical societies who cooperated with the Committee on Cancer and the Women's Field Army of the American Society for the Control of Cancer in arranging lay meetings in the various counties. The Buchanan County Medical Society was extremely generous in devoting their time on Radio Station KFEQ each Monday afternoon during March to broadcasts on "Cancer Control."

The total expense charged to the Missouri State Medical Association for the activities of the Committee on Cancer for the year 1936-1937 is \$544.50.

Recommendations

1. That the Committee on Cancer continue to cooperate with the Committee on Postgraduate Course and devote the fifth year of the five year plan to the presentation of the subject of "Cancer of the Stomach."

2. That wherever practicable, county medical societies appoint a cancer committee to cooperate with the Committee on Cancer of the Missouri State Medical Association.

3. That a postgraduate course of instruction on cancer be instituted at the Missouri University Medical School for the physicians of the state; this course to be offered by the Pathology Department.

4. That the Committee on Cancer be empowered to cooperate with all state agencies concerned with conserving the health of our citizens with the ultimate aim to materially improve the facilities for the diagnosis and treatment of cancer in all sections of the State of Missouri.

ELLIS FISCHEL, Chairman,
EARL C. PADGETT,
DUDLEY A. ROBNETT.

DR. ELLIS FISCHEL, St. Louis, Chairman: The report is long because the Committee has had a great deal to do the last year. Certain things I think should be brought to your attention. The first paragraph of the report deals with the annual calendar of the Committee which is based on a five year program. It was started four years ago and next year will be the last year of a definite program of helping component county medical societies to understand better the problems of diagnosis and treatment of cancer in a special part of the body. Seventeen meetings were held in county societies with an approximate attendance of 413 physicians. This was a slight falling off from last year but that is not surprising because the subject "Cancer of the Rectum" naturally would not appeal to those interested in the problems of crippled children, to the eye, ear, nose and throat men, etc.

The Advisory Committee to the Committee on Cancer will hold its first meeting tomorrow afternoon at 4:30 o'clock.

One important matter brought to our attention was that the Greene County Medical Society formed a cancer committee. It is our hope that every county medical society will do this. This is particularly important in view of the discussion of tumor clinics which may be formed throughout the state. We are in our third year of the tumor clinic at Fulton. I wonder if the members of our Association appreciate what it has meant to have an eleemosynary board recognize our Association as a competent and efficient body to have sole control of a part of their work. To me that is a matter of great significance, that these people functioning as a Committee of your Association should have entire charge of the only state treatment of cancer in Missouri. I think the connecting link in the relation of those in charge of the eleemosynary institution and the Legislature and Governor is that the Missouri State Medical Association is ready to help and willing to function as a body in looking after the health of the citizens of Missouri.

This report was referred to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Medical Economics, Dr. Carl F. Vohs, St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

The Committee has held numerous meetings during the last year and makes the following report and recommendations:

1. Resettlement Administration.—In discussing this subject numerous conferences have been held by the Committee with representatives of the Resettlement Administration, the Executive Committee of the State, the State Council of Illinois, representatives of the state organizations of Ohio, Indiana, Illinois and Iowa, and with Drs. R. G. Leland, Olin West and W. C. Woodward of the American Medical Association. At a meeting of the Committee on April 12 a program of cooperation with the Resettlement Administration for medical care of low income farm families who were clients of the Resettlement Administration was approved. The suggested program was submitted to all county medical societies for approval or rejection. The program follows:

A Program for Medical Care for Resettlement Clients in Missouri

The Committee on Medical Economics of the Missouri State Medical Association and representatives of the Resettlement Administration have suggested the following program as a result of conferences, to provide medical care for the clients of the Resettlement Administration in Missouri. An outline of the program suggested is as follows:

- I. (a) That the county medical societies recommend to the doctors of medicine in their counties that they furnish to the Resettlement Administration clients and their families the services usually rendered by a family physician at such fees as the families are able to pay. This service is to consist of home and office care, including obstetrical care and ordinary drugs. It will not include major operations or hospitalization.
- (b) A specified maximum fee for all surgical operations shall be agreed to by representatives of the Resettlement Administration and each county medical society.
- II. The Missouri State Medical Association will recommend:
 - (a) To the county medical societies that they

urge the physicians of their counties to cooperate with the Resettlement Administration in the matter of providing medical care for their clients.

- (b) That all questions concerning bills for medical services rendered under any program that is drawn up with the Resettlement Administration be referred to the Committee on Medical Economics of the local county medical society, with the president and secretary as ex officio members, or to a special committee appointed for this purpose. If this committee cannot come to an agreement in regard to these bills with all parties concerned, the questions will then be referred to the Committee on Medical Economics of the Missouri State Medical Association.
- (c) That the county medical society work with the County Rural Rehabilitation Supervisor and advise him of the physicians who have agreed to participate in this program.

III. The Resettlement Administration will:

- (a) Have a representative, the County Rural Rehabilitation Supervisor, meet with the county medical society or its committee and advise them as to the program of the Resettlement Administration and the names of the clients in the county.
- (b) The County Rural Rehabilitation Supervisor will advise the clients of the names of physicians who are willing to cooperate. The client will select the physician of his choice. The County Rural Rehabilitation Supervisor will then give to the client a memorandum for the physician showing that he is a client of the Resettlement Administration. The client and physician will then work out an agreement.
- (c) 1. The County Rural Rehabilitation Supervisor will take an application for loans for the payment of the fee agreed upon. If the loan is approved, the supervisor will advise the physician. These funds will be made available for payment at such intervals as may be deemed advisable.
2. The Rural Rehabilitation Supervisor will endeavor to secure funds either through grants or loans to take care of emergency surgical cases.
- (d) The representatives of the Resettlement Administration, State and Regional, will work with the Missouri State Medical Association in this program, it being thoroughly understood by the Resettlement Administration representatives that such a program will be made available only to those low-income farm families that are the responsibility of the Resettlement Administration.

It is recommended that consideration of this program be made a special order of business at the session of the House of Delegates on Wednesday, May 12, at 2:45 p. m.

2. Employees' Benefit Association Prepayment Plans.—The Committee has made a complete study of prepayment plans and employees' benefit associations operating in Missouri. A member of the Committee has also attended a meeting of the Judicial Council of the American Medical Association. It is the Committee's opinion that this evidence should be carefully considered by the Executive Committee of the Council in joint session with the Committee on Medical Economics so that our activities will be in harmony with the

By-Law on prepayment plans approved at the Columbia Session of the House of Delegates. (Chapter XI, Section 11.)

3. Medical Lien Law.—The Medical Lien Act is recommended for introduction into the legislature in its next session.

4. Workmen's Compensation.—A revision in this law is recommended. A complete study of this law is contemplated in round table discussions with Associated Industries, Organized Labor, Industrial Insurance Companies and the State Bar Association. As soon as a bill satisfactory to all is drafted it is to be introduced into the state legislature. This may take some time to accomplish but it is felt that with only such combined support can our aims be accomplished.

5. Basic Science Act.—The Committee recommends the passing of a Basic Science Act.

6. The Integration of the Profession.—The Committee recommends the further study of an act relating to the integration of the profession.

7. Advisability of Spreading Complete Program.—The Committee recommends the spreading of the program relating to Medical Economics insofar as possible especially advocating the establishment of group hospitalization on a statewide basis.

8. Complete State Survey of Medical Care.—This Committee recommends a complete statewide survey relating to medical care. It advises that this be done by the formation of economic committees in each county society. These committees will then work with the Committee on Medical Economics of the State Association in cooperation with the State Board of Health. We feel that only in this way can a satisfactory survey be made in less time and expense.

9. Program for County Medical Care Not Covered by Economics Program.—Following the above survey, the Committee recommends the development of a state program for the care of indigents in rural Missouri excluding the large cities where it is being done by United Relief agencies. The Committee also recommends that the state be divided into Economic Units large enough to support a hospital clinic and laboratory facilities.

10. Monthly Articles on Economics in the STATE JOURNAL.—The Committee recommends that the above program be given wide publicity through the STATE JOURNAL to the end that a logical economic program can be worked out in each county or unit.

11. The Committee recommends the adoption of the following resolutions:

WHEREAS, The general public throughout the United States is almost completely uninformed regarding the financial costs of compulsory health insurance; the inevitable effects of such legislation upon the quality of medical care, and the psychological and technical obstacles which almost certainly would render compulsory health insurance deleterious to health and unsound as insurance, and

WHEREAS, The facts concerning the economic and psychological foundations of quality in medical practice and a realization of the vital public interest in the preservation of these foundations must be immediately publicized to the lay public, therefore be it

Resolved, That the State Association does hereby memorialize the Board of Trustees of the American Medical Association, recommending that the American Medical Association establish a Council on Medical Economics whose function it shall be to engage expert and talented professional public relations counsel; this Council to be equipped with adequate financial resources to carry on a permanent campaign of publicity through the most obvious media reaching the masses of public opinion and setting forth dramatically and accurately, the story of medical progress in the United States, revealing and explaining the foundations of future progress and creating an informed public will to preserve those foundations, and be it further

Resolved, That the Council on Medical Economics be a fact finding body and prosecutor before the Judicial Council of all unethical practices in the country, and be it further

Resolved, That copies of this resolution be sent to the American Medical Association and our delegates directed to present the same to the House of Delegates of the American Medical Association.

The Committee recommends that the special committee of the Association appointed at the 1936 Annual Session for the purpose of studying the Medical Practice Act and similar legislation be continued. That said Committee shall have for its duty the preparation of a Basic Science Act; also amendments to the Workmen's Compensation Act which would make our Act similar to that of the State of New York and submit same to the General Assembly of Missouri at its next session.

CARL F. VOHS, Chairman,
E. L. JOHNSTON,
MORRIS B. SIMPSON.

DR. CARL F. VOHS, St. Louis, Chairman: I merely want to call your attention to the resolutions attached to our report. The St. Louis Medical Society has unanimously approved them and we ask that Delegates from this Association, if they are adopted by this body, recommend their adoption by the American Medical Association at the Atlantic City Session.

The resolutions were referred to the Reference Committee on Resolutions and the balance of the report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Health and Public Instruction (the McAlester Foundation), Dr. A. R. McComas, Surgeon, Chairman, follows:

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION (McALESTER FOUNDATION)

At a meeting in Jefferson City on March 10 called by Dr. C. H. Neilson, St. Louis, Chairman of the Postgraduate Committee, the Postgraduate Committee and the McAlester Foundation perfected plans for meetings on "Appendicitis." At this meeting were Drs. Neilson and M. Pinson Neal, Columbia, of the Postgraduate Committee; and Drs. A. R. McComas, Surgeon; F. G. Nifong, Columbia, and E. Lee Miller, Kansas City, of the Committee on Health and Public Instruction. The Committee on Health and Public Instruction has cooperated with the Postgraduate Committee in reaching the laity, especially on the subject of "Appendicitis." All members of this Committee have addressed lay audiences on this subject under the sponsorship of the Postgraduate Committee and a report of this work is incorporated in the report of the Postgraduate Committee.

A. R. McCOMAS, Chairman,
FRANK G. NIFONG,
E. LEE MILLER.

This report was referred to the Reference Committee on Medical Education and Public Welfare, in part, and the remainder to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Maternal Welfare, Dr. Ralph R. Wilson, Kansas City, Chairman, follows:

REPORT OF COMMITTEE ON MATERNAL WELFARE

The Committee on Maternal Welfare and Child Care has the following report to make for its second year's activity with recommendations subsequent thereunto:

Due to the splendid cooperation and interest of the members of the Committee during its organization period, it has been found that in the last year a considerable part of business could be transacted by mail and telephone communication rather than having so many special committee meetings. Aside from its

regular meeting at the time of the Annual Session the Committee has had the two following special meetings: 1, Kansas City, Missouri, September 23, 1936. 2, Springfield, Missouri, April 29, 1937. In addition, one or more members of the Committee have met with the State Board of Health twice during the year and the Chairman has been pleased to submit two interim reports to Councilor meetings in Columbia and St. Louis, respectively.

According to the Missouri Plan for Maternal Welfare and Child Care, which has been worked out by the Missouri State Board of Health in collaboration with the Federal Children's Bureau and your Committee, the duties of this Committee seem to fall into three provinces; namely, (1) relationship to the medical profession itself; (2) relationship to the State Board of Health; (3) relationship to the public at large.

A. Accomplishments to Date

I. Relationship to the Medical Profession:

1. The proposed changes in the standard birth certificate were accepted and the amended blanks are now in general use.

2. The "Query Column," under the editorship of Dr. E. Lee Dorsett for this year, has appeared in *THE JOURNAL* with a fair degree of regularity.

3. The Committee's Scientific Exhibit was presented at the American Medical Association in Kansas City in May and received an unexpected amount of favorable comment and attention.

4. Speakers on the subject of various phases of maternal mortality have been furnished to the following organizations during the year: (a) Medical section of the Missouri Academy of Science. (b) The Missouri Public Health Association on two different occasions: in Columbia, October 4, 1936, and in Springfield, April 29, 1937. (c) The Kansas City Southwest Clinical Society. (d) With Mr. Bartelsmeyer, your Chairman attended the Economic Conference of the Northwest, held in Chicago, February 14, 1937. (e) In collaboration with the Committee on Postgraduate Work a speaker was furnished to the special Councilor District meeting in Springfield, February 26, 1937. (f) The entire membership of the Committee appeared before a special meeting of the Greene County Medical Society, April 29, in Springfield, each member presenting briefly some phase of maternal care.

5. The Program Committee has been sufficiently impressed with the Maternal Welfare Dinner in Columbia to allow your Committee to continue with similar arrangements for this year.

6. The Committee's choice for a guest speaker before the General Assembly on Tuesday, May 11, is Dr. Norman F. Miller, Ann Arbor, Professor of Obstetrics and Gynecology at the University of Michigan. At the Maternal Welfare Dinner on the preceding evening, Dr. Miller will offer a critique of maternal deaths presented by Committee members for the last year.

7. The Chairman of your Committee reported in brief the Missouri Plan for Maternal Welfare and Child Care to the American Maternal Welfare, Incorporated, which held its annual meeting at the American Medical Association Convention in Kansas City in May. This will be published in detail in the *American Journal of Obstetrics and Gynecology* at an early date.

8. A superficial survey of conditions with relation to maternal welfare in Missouri has been made and the report published in *THE JOURNAL* in March, 1937.

9. At least three members of the Committee have arranged to attend the Annual Meeting of the Amer-

ican Maternal Welfare Committee, Incorporated, in Atlantic City in June, 1937.

10. At the meeting following the Maternal Welfare Dinner in Cape Girardeau on Monday night, May 10, a cash prize will be given to the author of the best article appearing in *THE JOURNAL*, since the last meeting in Columbia, bearing on maternal welfare.

II. Relationship to the State Board of Health:

The reorganization of the State Board of Health has been only a matter of temporary inconvenience to the Committee, and it wishes to express assurance that its relationship with that body continues to be most amiable and pleasant. The organization of field work in "Maternal Welfare" and "Child Care" operating under the Social Security Act has been organized according to Councilor Districts and, since July, 1936, "refresher courses" have been given in approximately three fourths of the counties of the state.

During the few weeks of inclement weather and bad roads of the winter season, the workers gave a series of special lectures in various sections of the state. The follow-up reports on these "refresher courses" were almost without exception favorable and gratifying. Dr. Oscar F. Bradford, Kansas City, has been the field worker in Pediatrics. Dr. Paul F. Fletcher, St. Louis, has been the field worker in Obstetrics. The Committee is pleased that Dr. Bradford and Dr. Fletcher are to be permitted to make a brief personal report of their activities.

The Committee at this point wishes to express appreciation and commend the efforts of Mr. Bartelsmeyer in the voluminous mass of work necessary in arranging for these many meetings and seeing that notices were properly sent. The Committee especially wishes to express their appreciation for the cooperation of the Councilors in this state program.

The State Board of Health continues to render to the Committee an invaluable service by submitting monthly the list of maternal deaths and the causes thereof. Eventually this study can be used to great advantage.

III. Relationship to the Public at Large:

Although the Committee has been organized for two years, and well does it recognize the numerous lay agencies that could be enlisted in a program for maternal welfare and child care, it has not seen fit to take advantage of these agencies until the profession itself became more maternal welfare conscious, and until a working plan with the State Board of Health could be put into smooth operation. Therefore, there have been no activities dealing with the lay public at large.

B. Proposed Objectives

I. Inasmuch, as it is the proposed motto of this Committee "to pursue and investigate every maternal death, not with the idea of censure or criticism, but in the hope of finding facts of value in protecting the expectant mother," it is desired that the Committee's questionnaire, proposed for submission to physicians having maternal deaths, will receive sufficient endorsement and understanding as to have its anticipated effectiveness realized by the inauguration of some workable plan.

II. Your Committee wishes endorsement and assistance in developing some plan whereby every expectant mother could have a Wassermann test.

III. That the secretary or the program committee of each of the component county societies attempt to put on an annual program with direct bearing on maternal welfare and child care. This could be done either with local talent alone or supplemented with guest speakers.

IV. That the Committee on Postgraduate Work and

the Committee on Scientific Work continue their valuable assistance in our efforts to develop a state-wide program.

RALPH R. WILSON, Chairman,
JOSEPH D. JAMES,
BUFORD G. HAMILTON,
W. T. STACY,
E. LEE DORSETT.

DR. RALPH R. WILSON, Kansas City, Chairman: We have one special recommendation to make in addition to the report. Collaborating with the Committee on Medical Economics we wish to recommend a survey of the state as to the actual medical status of the state as a whole.

The whole program of the Committee is one outlined by your Committee and carried on by our own members. I must call your attention to the enormous amount of technical work the headquarters office has done in taking care of us. I wish to express our appreciation to the Councilors for the manner in which this work has been handled.

The activities of the Committee during this meeting are the Maternal Welfare dinner tonight at which Dr. Norman F. Miller, Ann Arbor, Mich., will answer questions. Tomorrow afternoon Dr. Miller will be our guest speaker and on Wednesday afternoon we have a presentation of the work we are now doing.

This report was referred to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Mental Health, Dr. G. Wilse Robinson, Kansas City, Chairman, follows:

REPORT OF COMMITTEE ON MENTAL HEALTH

On November 4, 1936, there was a full meeting of the Committee at the City Sanitarium, St. Louis. The members of the Committee have contacted several county medical societies during the last year.

Some of the state hospitals have been visited and inspections made of their rehabilitation programs. The improvements of all the state hospitals are progressing nicely and many beds are being added. When all the improvements are completed, the increased bed capacity will just about take care of the present population of our state hospitals.

It is worthy of consideration that despite improved hospitalization, better nursing and more competent physicians in our state hospitals having increased the percentage of recoveries, yet, the hospital population is gradually increasing.

It is the duty of physicians to contribute to the augmentation of health, happiness and efficiency. If the members of our profession would interest themselves in the preservation of sound minds, much of the mental ill health could be prevented. In our opinion, the most important factors in the development of psychoses are brain deficiency and nutritional deficiency. Doctors should be able to recognize deficient brains and know how to protect them; also be able to recognize nutritional defects of the nervous system and know how to correct them.

We believe the medical staffs of our state hospitals are too small and, therefore, we recommend that they be increased. We suggest that the Committee on Postgraduate Work send to the county medical societies more men to present the problems of mental health and mental ill health.

We recommend that more consideration be given to the inadequate children in our public schools. An effort is being made by certain social agencies to create in our state a State Department of Public Welfare

and group under one board all of the state agencies.

We do not approve of combining the management of the state hospitals and the management of the penal institutions.

We do not approve of any plan that would place a layman at the head of our state hospitals. We believe that the doctors in our state hospitals should be supreme and should have control of their management. We believe the present kind of management is the best and should not be disturbed.

G. WILSE ROBINSON, Sr., Chairman,
G. A. JOHNS,
RALPH HANKS,
F. M. GROGAN,
E. F. HOCTOR.

DR. G. WILSE ROBINSON, Kansas City, Chairman: I wish to emphasize that in spite of having better hospitals, better doctors, better care of the insane, the population of our hospitals is gradually increasing. The medical profession is to blame for that. They do not take enough interest in the prevention of mental ill health.

Another matter which is not in our report has to do with state medicine which I hear discussed among members of the Association. It has been stepping on my toes for many years. Our state hospitals were primarily intended for the indigent insane. Under our present rule a wealthy man can go to his county court, if he has enough influence, and have a relative committed to a state hospital, pay \$6 a month to the county court for the care of that relative and the state pays the other \$12. These hospitals are supported by the state and something should be done about people of wealth taking advantage of that and crowding out the indigent insane. The improvements and new buildings at our state hospitals will barely take care of such persons. Farmington has a capacity of 650 and they have 1400 patients at times.

This report was referred to the Reference Committee on Medical Education and Public Welfare.

The report of the Special Committee on Fractures, Dr. M. L. Klinefelter, St. Louis, Chairman, follows:

REPORT OF COMMITTEE ON FRACTURES

The Committee on Fractures has accomplished very little but made rather elaborate plans.

We have worked with the Governor, with the Red Cross and others with the idea of establishing first aid stations throughout the state, particularly at the most dangerous points on the important highways. The Governor and the Red Cross have both been open minded and attentive on this subject. We feel it is just a question of deciding who is the best one to take the lead in this important work. The Red Cross has already established a number of stations in this state and a great many throughout the country, and is recognized by the American College of Surgeons and other important medical units. However, the State Highway Commission has made some progressive strides in this direction, all of the State Highway Patrol having completed an instruction course in first aid. All of the State Highway Department personnel in charge of maintenance on the highways are receiving instructions in this type of first aid. Regardless of whether or not the bill now pending in the Legislature is passed, there has been considerable progress made in the way of first aid. We feel that this first aid work is important inasmuch as it will certainly save some lives. In addition to that, it is most important because these people can be fixed up so that they can be transported more comfortably. This trained personnel can probably be taught to give

these people valuable advice in the way of transportation to enable them to get to the physician of their choice or, at least in most cases, to communicate with their family doctor before anything in the way of permanent treatment has been administered.

We ask that the State Medical Association empower the Fracture Committee to make arrangements with the county medical societies throughout the state to put on a program on fractures at least once a year in each county. This should be worked out in conjunction with the Committee of the State Association which has to do with arranging county meetings. We feel that these meetings should devote the entire time to the treatment of fractures. By dividing the state into proper geographical areas, each area could be assigned to the proper member of the Fracture Committee who would be held responsible for the programs. We feel that only by constant and persistent efforts can we expect the local doctors throughout the state to improve their fracture treatment. Above all, they should be impressed with the importance of evaluating the seriousness of the average fracture as it comes to them, or soon thereafter.

We tried to get at least an afternoon or morning session at the Annual Session for this year which could be entirely devoted to fractures. While we could not attain our goal, we certainly feel that fractures are of such importance at the present time that in the future we should have at least a half day devoted entirely to fractures. We also feel that we should, at the Annual Session, have a fracture demonstration similar to the one carried out by the American Medical Association.

We further feel that the Fracture Committee should be empowered to work in conjunction with the Red Cross or with the State organization, or whomever seems to be able to give us the most help in the way of establishing first aid stations and training the personnel.

M. L. KLINEFELTER, Chairman,
F. D. DICKSON,
W. J. STEWART,
JAMES D. HORTON,
H. K. WALLACE.

This report was referred to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Physical Therapy, Dr. A. J. Kotkis, St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON PHYSICAL THERAPY

During the last year the efforts of this Committee were confined to spreading postgraduate information throughout the state to various physicians, hospitals, county and city medical societies, regarding the technique and clinical value of various physical therapeutic measures.

Three symposia were held during the last year. One presentation on "Oxygen Therapy" was given in Kansas City last October. Two programs were given before the St. Louis Medical Society, one on "Oxygen Therapy," the other on "Artificial Fever Therapy."

County medical societies are beginning to call for speakers on special physical therapy subjects. Cape Girardeau County Medical Society and Buchanan County Clinical Society have arranged for speaking engagements.

Numerous requests for information regarding diathermy machines, ultraviolet and infra-red lamps, pavaex and artificial fever treatments are being received by the Physical Therapy Departments of

Washington and St. Louis University Medical Schools. This service is gladly furnished to the medical profession; in fact, it is encouraged.

The above efforts of this Committee are in accordance with the suggestions from the Council on Physical Therapy to the American Medical Association.

A. J. KOTKIS, Chairman,
C. H. NEILSON,
WM. J. STEWART,
F. H. EWERHARDT,
M. W. PICARD.

This report was referred to the Reference Committee on Miscellaneous Affairs.

The report of the Special Committee to Study the Medical Practice Act, Dr. W. H. Breuer, St. James, Chairman, follows:

REPORT OF COMMITTEE TO STUDY THE MEDICAL PRACTICE ACT

A joint meeting of the Committee on Public Policy and the Committee to Study the Medical Practice Act was held in the Melbourne Hotel, St. Louis, September 30, 1936, at 10 a. m. Those present were: Committee on Public Policy: Dr. W. L. Allee, Eldon, Chairman; Dr. W. H. Breuer, St. James, and Dr. J. Frank Harrison, Mexico; Committee to Study the Medical Practice Act: Dr. W. H. Breuer, St. James, Chairman; Dr. Lee D. Cady, St. Louis; Dr. T. W. Cotton, VanBuren; Dr. E. D. James, Joplin; Dr. O. C. Gebhart, Oregon; Dr. M. Pinson Neal, Columbia. Dr. J. Milton Singleton, Kansas City, was absent. Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary; Dr. A. R. McComas, Sturgeon, and Dr. Carl F. Vohs, St. Louis, were also present.

1. On motion duly seconded the Committee unanimously endorsed an amendment to the Medical Practice Act which would require an applicant for medical licensure to be a citizen of the United States.

2. On motion duly seconded the Committee unanimously endorsed an amendment which would include the requirements for medical licensure in accordance with a resolution adopted by the House of Delegates of the American Medical Association at the 1936 Kansas City Session. The resolutions follow:

WHEREAS, Through the initiation, support and watchfulness of organized medicine, standards of medical education and medical practice have rapidly and continuously advanced; and

WHEREAS, There is a serious danger of this most satisfactory state of progress being undermined, and weakened by the registration to practice of graduates of medical schools of foreign countries; and

WHEREAS, There is in the files of the Council on Medical Education and Hospitals of the American Medical Association and the Federation of State Medical Boards, evidence that many of the foreign medical schools do not consistently maintain and enforce the same high standards as are maintained in the medical schools of the United States; therefore be it

Resolved, That each applicant for medical license in the United States, in order to adjust this inequality and to show a knowledge of acceptable medical practice, should be required before being admitted to a written examination before a properly constituted examining board to hold a license to practice in the country of his graduation and a certificate that he has completed a year's work as an intern in a hospital approved for internship training or should complete the fourth year in an American Class A medical college; and be it further

Resolved, That the House of Delegates of the American Medical Association approve the foregoing and that a copy be sent to the properly constituted officers of each examining board of the United States and to the Federation of State Medical Boards, with the request that they consider seriously urgent need for the adoption of such rules and/or legislation necessary to put the purpose of these resolutions into effect.

3. On motion duly seconded the Committee unanimously approved an amendment to the Medical Practice Act which would provide for the payment of certain fees to the respective members of the State Board of Health for examining papers if and when

the State Board of Health felt it expedient to introduce such an amendment provided, however, that if such an amendment were proposed it should be presented to the legislature in a bill separate and apart from any other amendments previously endorsed by the Committee.

4. On motion duly seconded the Committee unanimously disapproved an amendment which would raise the fees of applicants for medical licensure from \$15.00 to \$25.00.

5. On motion duly seconded the Committee unanimously disapproved an amendment which would require annual registration of licensed practitioners of medicine.

6. On motion duly seconded the Committee unanimously disapproved an amendment which would raise the fee for licensing midwives from \$5.00 to \$50.

7. The Committee felt that an amendment should be introduced which would require registrars to be licensed practitioners of medicine.

8. The Committee considered the advisability of amending the Workmen's Compensation Act as was explained in detail by Dr. Carl F. Vohs. On motion by Dr. Cady, seconded by Dr. Gebhart, the Committee unanimously approved the appointment of a special committee to confer with the labor unions, members of the State Board of Health, the State Bar Association and the Associated Industries regarding the proposed changes as suggested by Dr. Vohs. It was the opinion of the Committee that the suggested changes should have the endorsement of these organizations before being submitted to the General Assembly and that such proposed amendments should be sponsored by the labor organizations. The chairman appointed Dr. Lee D. Cady and Dr. Carl F. Vohs as members of this Committee with instructions to report back at some future Committee meeting.

9. The Committee discussed the advisability of submitting to the General Assembly a bill which would give physicians and hospitals a lien on moneys collected by injured persons in accident cases similar to a bill sponsored by the Association four years ago. On motion by Dr. Cady, seconded by Dr. James, further study of this proposed act was referred to the Association's Committee on Medical Economics.

10. Discussion was had by the Committee concerning a proposed Basic Science Law. On motion by Dr. Neal, seconded by Dr. Cotton, the Committee decided that further study should be made of the provisions of such an act before being submitted to the General Assembly.

11. Dr. Cady presented the details of a proposed Integrative Medical Practice Act. After discussion by all members of the Committee on motion by Dr. Cady, seconded by Dr. Neal, it was decided that further study of the proposed act be made in cooperation with the members of the State Board of Health and the Association's Committee on Public Policy.

Your chairman recommends the continuance of the special committee appointed at the 1936 Annual Session to work in conjunction with the Committee on Public Policy to study the proposed Integrative Medical Practice Act, a Basic Science Law and amendments to the Workmen's Compensation Act.

W. H. BREUER, Chairman,
LEE D. CADY,
J. MILTON SINGLETON,
T. W. COTTON,
E. D. JAMES,
O. C. GEBHART,
M. PINSON NEAL.

This report was referred to the Reference Committee on Miscellaneous Affairs.

The report of the Special Committee on Constitution and By-Laws, Dr. Floyd H. Spencer, St. Joseph, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

The Council of our Association referred to this Committee a resolution introduced by Dr. E. P. Heller, Kansas City, Councilor of the 13th District, as sponsored by the Executive Council of the Jackson County Medical Society, as follows:

WHEREAS, The Constitution and By-Laws of the Missouri State Medical Association make no provision for or against the admission to membership in the State Association or any of its component parts of Negro physicians, therefore be it

Resolved, That the matter of making specific provision for or against such membership be referred to the Committee on Revisions of the Constitution and By-Laws for appropriate action.

Your Committee therefore submits the following amendment to the Constitution of our Association:

Amend Article IV of the Constitution entitled "Composition of the Association" by adding between the words "societies" and "who" of said article the following words "to which only white physicians shall be eligible" so that when amended said section shall read:

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION.

This Association shall consist of members who shall be members of the component county medical societies to which only white physicians shall be eligible who have been certified to the headquarters of this Association, and whose dues and assessments for the current year have been received by the Secretary.

In accordance with Article XIII of the Constitution relating to amendments, your Committee recommends this amendment be laid on the table until the next Annual Session.

Your Committee submits an amendment which has for its purpose the designation of the Committee on Constitution and By-Laws as a Standing Committee. The amendment follows:

Amend Chapter VII, Section 1, of the By-Laws relating to Committees by adding to the said section the following words: A Committee on Constitution and By-Laws so that when amended said section shall read:

CHAPTER VII.—COMMITTEES

SECTION 1. The standing committees of this Association shall be as follows:

- A Committee on Scientific Work.
- A Committee on Public Policy.
- A Committee on Publication.
- A Committee on Medical Defense.
- A Committee on Medical Education and Hospitals.
- A Committee of Medical Economics.
- A Committee on Postgraduate Course.
- A Committee on Cancer.
- A Committee on Maternal Welfare.
- A Committee on Mental Health.
- A Committee on Health and Public Instruction (The McAlester Foundation).
- A Committee on Constitution and By-Laws.

Amend Chapter VII of the By-Laws relating to Committees by adding a new section thereto to be known as Section 13 to read:

SEC. 13. The duties of the Committee on Constitution and By-Laws shall be to propose such amendments to the Constitution and By-Laws as is deemed wise and expedient and to bring before the House of Delegates such amendments as it or other members of the Association may present for consideration.

Your Committee recommends this amendment be referred to the Reference Committee on Amendments to the Constitution and By-Laws, with instructions to submit its report to the House of Delegates at its session to be held on Wednesday, May 12.

FLOYD H. SPENCER, Chairman,
FRANK R. TEACHENOR,
O. B. HALL.

This report was referred to the Reference Committee on Amendments to Constitution and By-Laws.

The committee appointed to draw resolutions to submit to the Legislature in regard to Amendments 3 and 4 of Senate Bill No. 3 reported as follows:

WHEREAS, There is pending before the Missouri Assembly Substitute Senate Bill No. 3 whose purpose is the creation of a state hospital for the investigation of cancer and the care and treatment of indigent cancer patients and for clinics for the same purpose throughout the state, and

WHEREAS, There have been attached to said bill four amendments by the House, and

WHEREAS, Amendments Nos. 3 and 4 provide for a hospital set-up which makes impossible the proper care and treatment of said indigent cancer patients in that they take the investigation of cancer and the care and treatment of the patient and the management and control of the clinics out of the hands of those qualified to carry out the express purpose of Substitute Senate Bill No. 3, therefore be it

Resolved, By the Missouri State Medical Association in convention assembled at Cape Girardeau on May 10, 1937, that we urge the defeat of said Amendments Nos. 3 and 4, and be it further

Resolved, That a copy of these resolutions be forwarded to the sponsor of Substitute Senate Bill No. 3 to be presented by him to the joint conference of the House and Senate.

Discussion was by Drs. E. P. Heller, Kansas City; L. M. Lyons, Pierce City; Robert E. Schlueter, St. Louis; R. Emmet Kane, St. Louis; Herbert L. Mantz, Kansas City; Curtis H. Lohr, St. Louis; James E. Stowers, Kansas City; A. J. Campbell, Sedalia; Ellis Fischel, St. Louis; H. A. Lowe, Springfield; James R. McVay, Kansas City; C. P. Dyer, St. Louis, and J. F. Harrison, Mexico. Discussion concerned handling of the bill by the Council and history of the bill, opposition to the bill as a whole on the ground that it was not the best way of caring for indigent cancer patients, and other methods of handling such patients.

An amendment to the resolution to oppose the bill as a whole was offered by Dr. Herbert L. Mantz, Kansas City, and on vote was not accepted.

The resolutions were adopted.

Appointment of Committee on Nominations

The president announced the appointment of the Committee on Nominations as follows:

R. M. James, Joplin, Chairman.
E. Lee Miller, Kansas City.
E. R. Rice, St. Louis.
A. H. Marshall, Charleston.
F. H. Spencer, St. Joseph.
T. W. Cotton, Van Buren.
A. J. Campbell, Sedalia.
R. E. Breuer, Newburg.
W. S. Sewell, Springfield.
W. R. Jackson, Maryville.

On motion the House of Delegates recessed until 4 o'clock.

Monday, May 10, 1937—Afternoon Session

The adjourned session of the House of Delegates convened at 4 o'clock, Monday, May 10, with the President, Dr. Ross A. Woolsey, St. Louis, presiding.

REPORT OF THE REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Dr. M. Pinson Neal, Columbia, read the report of the Reference Committee on Amendments to the Con-

stitution and By-Laws as submitted by the Committee on Constitution and By-Laws (page 265).

Amendments to the Constitution are to be laid over until the next Annual Session. The amendments to the By-Laws will be laid on the table until the Wednesday afternoon session.

On motion of Dr. M. Pinson Neal, Columbia, seconded by Dr. W. T. Elam, St. Joseph, this report was adopted.

Dr. A. R. McComas, Sturgeon, Chairman of the Council, reported as follows:

REPORT OF THE COUNCIL

The annual meeting of the Council was held in the Daniel Boone Tavern, Columbia, November 5, 1936, 10 a. m., with Dr. A. R. McComas, Chairman, presiding.

The following were elected to serve as the General Committee on Arrangements for the 1937 Annual Session: Dr. B. W. Hays, Jackson, Chairman; Dr. T. W. Cotton, Van Buren, and Dr. J. B. Luten, Caruthersville. Dr. M. H. Shelby, Cape Girardeau, was appointed chairman of the Local Committee on Arrangements.

The Chairman appointed the following as the Committee on Auditing and Appropriations: Dr. T. W. Cotton, Van Buren; Dr. Spence Redman, Platte City; Dr. E. P. Heller, Kansas City.

The selection of the dates of the forthcoming Annual Session, at Cape Girardeau, was referred to the Executive Committee.

The Committee on Scientific Work was granted discretionary authority to invite out-of-state speakers for the Annual Session.

The report of the Treasurer was referred to the Committee on Auditing and Appropriations.

The Assistant Secretary, Mr. Bartelsmeyer, reported an increase in membership of thirty-four as compared with the previous year, and that the number of delinquents was sixty-four less than the number reported at the previous annual session of the Council.

He further reported that letters were being sent to those county societies participating in the Refresher Courses on Obstetrics and Pediatrics enclosing a list of the names of eligible nonmembers suggesting that the eligible nonmembers be invited to attend the courses and to become members. This has met with good results.

Reports of the following committees of their activities to date were submitted: Health and Public Instruction (McAlester Foundation); Publication; Defense; Postgraduate Work; Medical Economics; Cancer; Mental Health; Public Policy; Committee to Study the Medical Practice Act; Maternal Welfare, and Fractures. Since all activities reported by the committees are included in their respective annual reports submitted to the House of Delegates only the action of the Council as to approval of recommendations is reported.

The Committees on Postgraduate Work and Health and Public Instruction (McAlester Foundation) co-operating together were authorized to conduct postgraduate instruction to the profession and to lay audiences in all Council Districts on the topic of "Appendicitis" upon request of the respective Councilors.

The recommendation of the Committee on Public Policy that the Council endorse the erection of a general hospital at Columbia for the care and treatment of indigent sick was approved. Dr. E. P. Heller, Kansas City, voted no.

On recommendation of the Committee on Auditing

and Appropriations the following budget for 1937 was adopted:

Salaries	
Office	\$ 7,700.00
JOURNAL	4,600.00
Printing of JOURNAL	6,500.00
Legislation	2,500.00
Defense	1,000.00
Postage	400.00
Postgraduate Work	1,000.00
Printing and Stationery	800.00
Traveling Expenses (Secretary and Assistant Secretary)	1,100.00
Telephone and Telegraph	800.00
Rent of Office and Light	1,400.00
Meetings (Annual Session, Council, Executive Committee)	3,000.00
General Expense and Miscellaneous	800.00
Total	\$31,600.00

The Secretary reported as follows: The Medical Library Association, a national organization, writes requesting us to petition Congress to appropriate sufficient money to enable the Library of the Surgeon-General's Office to purchase medical books and medical periodicals throughout the world in order to maintain the eminence of the Surgeon-General's Library which is now probably the greatest institution of its kind in the world, and to maintain the "Index Catalogue" of the Library. This is a worthy cause and I suggest that we adopt the following resolution to be sent to all Congressmen and Senators from Missouri.

The following resolutions were adopted:

WHEREAS, The value and usefulness of the "Index Catalogue" is dependent upon the completeness of the files of medical publications contained in the Library of the Surgeon-General's office, a public national medical library, the greatest in the world, serving in its present form of administration with satisfaction the medical profession and the medical libraries of our country, and

WHEREAS, In recent years the annual appropriation of the Congress has been wholly inadequate to provide sufficient funds to acquire the current medical books and periodicals issued throughout the world so that they might be available for use throughout the country and for inclusion in the "Index Catalogue," therefore be it

Resolved, That the Council of the Missouri State Medical Association urge the Congress to appropriate annually to the Library of the Surgeon-General's Office an adequate sum for current medical books and periodicals; and an additional sufficient sum annually for as many years as may be required in order to make for the greatest possible completeness of the collection and its catalogue; and be it further

Resolved, That a sum be appropriated annually to defray the cost of printing regularly each year not less than one volume of the "Index Catalogue," and be it further

Resolved, That a copy of these resolutions be sent to each Congressman and to each Senator from Missouri with the request that they use their good auspices toward securing this appropriation.

The following resolution, introduced by Dr. E. P. Heller, Kansas City, was referred to the Committee on Constitution and By-Laws:

WHEREAS, The Constitution and By-Laws of the Missouri State Medical Association makes no provision for or against the admission to membership in the State Association or any of its component parts, of Negro physicians, therefore be it

Resolved, That the matter of making specific provision for or against such membership be referred to the Committee on Constitution and By-Laws for appropriate action.

Upon recommendation of President Woolsey the following appointment was approved: Dr. Frank G. Mays, Washington, as Councilor of the Eighth District to fill the vacancy created by the resignation of Dr. B. K. Stumberg, St. Charles.

A ruling was requested of the Chairman concerning the hyphenation of the Lawrence-Stone-Barry County Medical Society at the previous Annual Session. The Chairman announced that the hyphenation had been ef-

fective for scientific purposes in which the Council concurred.

The application for membership of Dr. J. M. Thompson, Koshkonong, was rejected.

Meeting of Executive Committee

A meeting of the Executive Committee was held at the Melbourne Hotel, St. Louis, Missouri, December 2, 1936, at 9:30 a. m.

Upon recommendation of President Woolsey the following appointments on the Committee on Constitution and By-Laws were approved: Dr. Floyd H. Spencer, St. Joseph, Chairman; Dr. Frank R. Teachenor, Kansas City, and Dr. O. B. Hall, Warrensburg.

Upon recommendation of President Woolsey the following appointments on the Advisory Committee to the Committee on Cancer were approved: Drs. D. K. Rose, Wm. H. Vogt, Q. U. Newell and Ross A. Woolsey, St. Louis; M. Pinson Neal, F. G. Nifong and D. S. Conley, Columbia; Ralf Hanks and T. S. Lapp, Fulton; S. V. Bedford, Jefferson City; Robert Koritschner, E. Kip Robinson and David S. Dann, Kansas City; Wallis Smith and H. A. Lowe, Springfield; C. A. W. Zimmermann, Cape Girardeau; J. S. Gashwiler, Novington; E. A. Oliver, Richland; F. L. Martin, Nevada; A. M. Gregg, Joplin; H. J. Ravold and Floyd H. Spencer, St. Joseph.

Dr. E. H. Skinner, Kansas City, tendered his resignation as Alternate Delegate to the American Medical Association on account of having been elected a delegate to represent the Section on Radiology. The resignation was accepted.

Upon recommendation of President Woolsey the appointment of Dr. Frank R. Teachenor, Kansas City, as Alternate Delegate to the American Medical Association, to fill the vacancy created by the resignation of Dr. E. H. Skinner was approved.

The dates of May 10, 11 and 12 were selected for the Cape Girardeau Session.

The report of the Committee on Medical Education and Hospitals wherein charges of unethical behavior against a private hospital were found not to be substantiated was ordered filed and a copy ordered sent to the Council on Medical Education and Hospitals of the American Medical Association.

The Committee on Public Policy reported that after a conference with the State Board of Health the Committee would support an amendment to the Medical Practice Act which would require citizenship of applicants for medical licensure and a further requirement of a premedical course in physics, chemistry and biology.

The Executive Committee went on record as approving the action of the House of Delegates of the American Medical Association at its 1936 Annual Session regarding birth control. The recommendations of the Committee of the American Medical Association to study contraceptive practices and related problems as adopted by the House of Delegates of that body was as follows:

"1. That a committee be appointed to continue a study of birth control and to report further to the House of Delegates.

"2. Your committee desires to record its disapproval of propaganda directed to the public by lay bodies, organized solely for the purpose of disseminating (without consideration or restraint) contraceptive information. Your committee deprecates the support of such agencies by members of the medical profession. It feels that an entirely false sense of values with respect to the important function of childbearing and/or parenthood has been created by the activities of such organizations."

The secretary was instructed to prepare an editorial on this subject for publication in *THE JOURNAL* (see February, 1937, issue).

Meeting of February 1

The Executive Committee met in joint session with the Committee on Medical Economics at the Melbourne Hotel, February 1, at 10 a. m. A thorough discussion was held concerning a proposed plan for the medical care of clients of the Resettlement Administration in Missouri as presented by Dr. R. C. Williams, Medical Director of the Resettlement Administration, United States Department of Agriculture, and Mr. M. E. Hays, Regional Cooperative Specialist of the Resettlement Administration.

The proposed plan of the Resettlement Administration and subsequent conferences concerning it is included in the report by the Committee on Medical Economics submitted to the House of Delegates.

The Minutes of the Council meeting of May 10 (page 275) were read.

Dr. A. R. McComas, Surgeon, moved the adoption of the report of the Council, was seconded by Dr. J. S. Gashwiler, Novinger, and the report was adopted.

Dr. L. M. Lyons, Pierce City, discussed the hyphenation of the Barry County Medical Society with the Lawrence-Stone County Medical Society. No action was taken.

Dr. Frank G. Mays, Washington, read the report of the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

There was only one resolution submitted to this Committee, the one from the Committee on Medical Economics which reads as follows:

WHEREAS, The general public throughout the United States is almost completely uninformed regarding the financial costs of compulsory health insurance; the inevitable effects of such legislation upon the quality of medical care, and the psychological and technical obstacles which almost certainly would render compulsory health insurance deleterious to health and unsound as insurance, and

WHEREAS, The facts concerning the economic and psychological foundations of quality in medical practice and a realization of the vital public interest in the preservation of these foundations must be immediately publicized to the lay public, therefore be it

Resolved, That the State Association does hereby memorialize the Board of Trustees of the American Medical Association, recommending that the American Medical Association establish a Council on Medical Economics whose function it shall be to engage expert and talented professional public relations counsel; this Council to be equipped with adequate financial resources to carry on a permanent campaign of publicity through the most obvious media reaching the masses of public opinion and setting forth dramatically and accurately, the story of medical progress in the United States, revealing and explaining the foundations of future progress and creating an informed public will to preserve those foundations, and be it further

Resolved, That the Council on Medical Economics be a fact finding body and prosecutor before the Judicial Council of all unethical practices in the country, and be it further

Resolved, That copies of this resolution be sent to the American Medical Association and our delegates directed to present the same to the House of Delegates of the American Medical Association.

When the Committee went into session the chairman of the Committee on Medical Economics met with the Committee and offered substitute resolutions which read:

WHEREAS, There are unmistakable indications that compulsory health insurance and other phases of state medicine are among the plans of our Federal Government, and

WHEREAS, The public and some members of the medical profession have insufficient knowledge of the consequences of such services; and

WHEREAS, Adequate scientific medical treatment of the sick and afflicted is our first consideration, and

WHEREAS, Such projects involve the appointment of physicians and surgeons, which should be done in accordance with the recommendations of the American Medical Association, and

WHEREAS, The State Associations and their county unit societies have demonstrated their inability to properly discipline their members, therefore be it

Resolved, That the American Medical Association shall establish a Council on Medical Ethics and Economics for a thorough study of the entire situation and everything which it might entail, give widespread publicity to all the phases of its activities, and be it further

Resolved, That the by-laws and regulations of the American Medical Association be so amended, that this Council on Medical Ethics and Economics may also investigate alleged unethical conduct which may be brought to its attention and prosecute the apparent violations before the Judicial Council of the Association for ultimate disposition as to innocence or guilt, with either exoneraton or punishment, and be it also

Resolved, That our delegates be instructed to present this action to the House of Delegates of the American Medical Association, at the Atlantic City Session in June, 1937.

Our Committee, after studying this matter and analyzing it as best we could, feel that the substitute resolution is the proper one for your consideration. I move the adoption of this report.

FRANK G. MAYS, Chairman,
ANTHONY B. DAY,
T. GUY HETHERLIN.

After discussion by Drs. A. R. McComas, Surgeon; W. H. Breuer, St. James; Carl F. Vohs, St. Louis, and Robert E. Schlueter, St. Louis, the substitute resolution offered by the Committee on Medical Economics was adopted.

Dr. E. L. Johnston, Concordia, read the report of the Reference Committee on Medical Education and Public Welfare.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

Your Committee has considered that portion of the report of the Postgraduate Committee which has to do with the lay instruction on "Appendicitis" and hereby approves of their effort and recommends that this work be continued to include other important diseases which lend themselves to lay instruction.

Your Committee has considered the report of the Committee on Mental Health and concurred in the report.

Your Committee has considered the recommendations of the Committee on Cancer, Section 3, and recommends that the postgraduate instruction be given in the various Councilor Districts, regional postgraduate courses extending over several days thereby making them available to all members of the Association. Your Committee recommends approval of the other recommendations of this report.

Your Committee has considered the report of the Committee on Maternal Welfare, Article B, Section II, and recommends that the State Board of Health be requested to include on the Board Registration card "Has the patient had a Wassermann?"

E. L. JOHNSTON, Chairman,
JEROME E. COOK,
JAMES R. MCVAY.

On motion of Dr. E. L. Johnston, Concordia, duly seconded, this report was adopted.

Dr. W. R. Limbaugh, Hayti, read the report of the Reference Committee on Miscellaneous Affairs.

REPORT OF REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

We recommend the adoption of the following reports:

The Committee on Physical Therapy
The Committee on Study of the Medical Practice Act
The Committee on Medical Economics
The Committee on Fractures

We especially recommend that the Association empower the Committee on Fractures to make arrangements with the county medical societies throughout the state to put on programs on "Fractures" at least once a year in each county.

We commend these committees for their competent and efficient work.

W. R. LIMBAUGH, Chairman,
J. J. BREDALL,
A. H. THORNBURGH.

On motion, duly seconded, this report was adopted.

Dr. Herbert L. Mantz, Kansas City, moved that the State of Missouri be divided into ten Councilor Districts, composed as follows:

First District: Atchison, Buchanan, Caldwell, Livingston, Carroll, Clay, Clinton, DeKalb, Gentry, Grundy, Daviess, Harrison, Holt, Mercer, Nodaway, Platte, Ray, Andrew and Worth.

Second District: Adair, Schuyler, Knox, Sullivan, Chariton, Clark, Lewis, Linn, Macon, Marion, Ralls, Pike, Putnam, Randolph, Monroe, Scotland and Shelby.

Third District: St. Louis (City).

Fourth District: Franklin, Jefferson, Warren, Lincoln, St. Charles and St. Louis (County).

Fifth District: Audrain, Boone, Callaway, Camden, Cole, Cooper, Gasconade, Maries, Osage, Howard, Miller, Moniteau, Montgomery and Morgan.

Sixth District: Bates, Benton, Cass, Henry, Johnson, Lafayette, Pettis, Saline, Vernon, Cedar and St. Clair.

Seventh District: Jackson.

Eighth District: Barry, Barton, Christian, Dallas, Hickory, Polk, Greene, Jasper, Lawrence, Stone, Newton, Taney, Webster, Dade and McDonald.

Ninth District: Carter, Shannon, Dent, Howell, Oregon, Texas, Wright, Douglas, Laclede, Phelps, Crawford, Pulaski, Ozark and Ripley.

Tenth District: Butler, Cape Girardeau, Dunklin, Mississippi, Pemiscot, Perry, Scott, St. Francois, Iron, Madison, Washington, Reynolds, Ste. Genevieve, Stoddard, Wayne, Bollinger and New Madrid.

The reasons listed by Dr. Mantz for ten Councilor Districts are: (1) Efficiency, a small Council is more easily assembled and at less cost. (2) A small Council will not have strength to overbalance the House of Delegates and therefore not represent the true sentiment of the Association. (3) Means of transportation are vastly different from the horse and buggy days and a Councilor may now have a much larger district and still do efficient work. (4) For some districts the membership is so small that we have practically a "rotten borough system," e. g., one district has only ten members compared to District 30 with 156 or District 20 with 1040. (5) Progressive states have few councilor districts: Pennsylvania, 11; Minnesota, 9; Kansas, 12; Illinois, 13; Wisconsin, 13, and New York, 8. (6) Finally, the American Medical Association recommends that states with many councilor districts reduce them to a few.

After discussion by Drs. W. H. Breuer, St. James; James R. McVay, Kansas City; Frank G. Mays, Washington; R. Emmet Kane, St. Louis; C. P. Dyer, St. Louis; M. Pinson Neal, Columbia; Herbert L. Mantz, Kansas City; H. A. Lowe, Springfield; F. E. Butler, Salem; Robert E. Schlueter, St. Louis, and L. M. Lyons, Pierce City, the motion carried by a vote of 42 to 38.

Dr. E. L. Spence, Kennett, offered the following amendments to the Constitution and By-Laws.

Amendments to Constitution

Amend Article V by striking out "(1)" and the words "and (2) the officers of the Association enumerated in Section 1 of Article IX of this constitution" and adding one new section so that when amended said article shall read:

ARTICLE V.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall be the legislative body of the Association and shall consist of delegates elected by the component county societies. The officers of the Association as enumerated in Section 1, Article IX, of this Constitution shall have the right to attend all meetings of the House of Delegates and all other rights of delegates in such meetings except the right to vote.

Sec. 2. The officers of the House of Delegates shall be a Speaker and a Vice Speaker elected by the delegates from their body. The Secretary of the Missouri State Medical Association shall be the Secretary of the House of Delegates.

Amend Section 1, Article IX—Officers, by inserting after the word "Treasurer" the words "Speaker and Vice Speaker of the House of Delegates" so that when amended said Section 1 shall read:

ARTICLE IX—OFFICERS

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice Presidents, a Secretary, a Treasurer, a Speaker and a Vice Speaker of the House of Delegates and ten Councilors.

Amend Section 2, Article IX—Officers, by inserting after the word Council at the end of the fifth line the following sentences: "The delegates present from each Councilor District shall meet on the morning of the third day of the Annual Session and elect the Councilor from that District. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. No Councilor shall be eligible to serve more than three consecutive terms. All of the officers shall serve until their successors are elected and installed," so that when amended, Section 2, Article IX, shall read:

SEC. 2. The officers, except the Councilors, shall be elected annually. The terms of the Councilors shall be for two years; one half the members of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet on the morning of the third day of the Annual Session and elect the Councilor from that District. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. No Councilor shall be eligible to serve for more than three consecutive terms. All of the officers shall serve until their successors are elected and installed.

Amendments to the By-Laws

Amend Section 4, Chapter III, by striking out the word "President" and inserting the word "Speaker" and by inserting after the word "resolutions" the words "on majority vote of the House of Delegates" so that when amended said Section 4 shall read:

SEC. 4. From among members of the House of Delegates the Speaker shall appoint Reference Committees to which reports and resolutions on a majority vote of the House of Delegates shall be referred as follows:

Reference Committee on Amendments to the Constitution and By-Laws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

He shall also appoint a Committee on Credentials and such other committees as may be considered by him to be necessary.

Amend Section 1, Chapter IV, by striking out the word "President" and inserting the words "Speaker of the House of Delegates" in the first line and the words "each candidate for Councilor must be a resident of the District for which he is nominated" and by striking out the last sentence, "On the adoption of this section the nomination of the President for the succeeding year shall be made from the floor of the House," so that when amended said section shall read:

CHAPTER IV—ELECTION OF OFFICERS

SECTION 1. The Speaker of the House of Delegates on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Amend Section 1, Chapter V, by adding after the word "delegates" in the third line the words "until its Speaker is chosen" so that when amended Section 1, Chapter V, shall read:

CHAPTER V—DUTIES OF OFFICERS

SECTION 1. The President shall preside at all meetings of the Association and of the House of Delegates until its Speaker is chosen and shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Amend Section 2, Chapter V, by adding in the first line the words "The President and" and by deleting after the word "Council" in the second line the words "and of the Executive Committee of the Council ex officio" and by substituting for the words "those bodies" in the fourth line the words "the Council" so that when amended this section shall read:

SEC. 2. The President and the President-Elect shall be members of the Council and shall attend all meetings of the Council. Should the office of President-Elect become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

These amendments were laid over for action at the next Annual Session.

Dr. E. Lee Miller, Kansas City, offered the following resolution:

Resolved, That a special committee of five be appointed by the President of the Missouri State Medical Association, one member each to represent and be chosen after consultation with the following groups: The faculty or dean of the University of Missouri Medical School, the staff of the Kansas City General Hospital, the Jackson County Medical Society, the Health Department of Kansas City and the State Medical Association Executive Committee. That this committee make a thorough investigation and report back to the Missouri State Medical Association all findings relating to the satisfactory solution of this four-year medical school problem at the University of Missouri.

DR. E. LEE MILLER, Kansas City: Inasmuch as the medical course taught at the University of Missouri

terminates with the second medical school year, and since this circumstance results in greater or less inconvenience to students having completed such a course there offered in later finding suitable schools that will permit them to complete their clinical years of study; and since the Committee on Medical Education of the American Medical Association has been encouraging two-year schools to close or teach the full four-year medical curriculum, the following explained resolution logically become a matter of serious concern of the Missouri State Medical Association.

In order that some studied and scientific opinion, relevant to the practical solution of this twenty-five year old problem, can properly be obtained for your complete information and proper consideration, it seems evident that this organization, here assembled, can only attain this desired end through a severe and special study of this problem by an appointed and interested special Committee of the Missouri Medical Association.

The purpose of this Committee shall be to investigate thoroughly and scientifically all phases and facts involved in the solution of this aged problem, and if appointed it should be empowered with such responsibility and should be particularly directed to investigate and report on:

1. The present condition of the University of Missouri School of Medicine.

2. The need, if any, for expansion by adding the clinical years of instruction.

3. An unprejudiced estimate of the cost of such an expansion.

4. The best means or methods of bringing about such an expansion if it should be desired, so that the completed school shall be rated a superior one.

5. Such other features as shall occur to, or may be suggested to the Committee, by any member of the State Association, by any qualified and interested citizen of the State of Missouri, by members of the medical profession outside the State of Missouri, by the President of the University, or also any or all members of the Board of Curators, shall be matters for their concern and estimate.

6. That a written report of relevant findings and conclusions of such an investigation shall be made to the Missouri State Medical Association at its next regular Annual Meeting, and this report be made a special order of business of that session.

Mr. President, I move, Sir, that such a special committee, with such vested responsibilities, be appointed to report to the House of Delegates one year hence, in order that the Missouri State Medical Association can have facts and findings on which to scientifically and morally base a worthwhile and workable opinion in the solution of the two or four year medical school problem as it concerns the University of Missouri and organized medicine in Missouri.

Dr. M. Pinson Neal, Columbia, offered the following amendments to the resolution introduced by Dr. Miller:

1. That the title shall read: A special committee be appointed to make a survey and render a report to this body on the question: "Can and by what means may the University of Missouri School of Medicine further its ideals of better training and supplying physicians to the State of Missouri?"

2. That this committee be composed of three members.

3. That a reasonable sum of money be allocated to this committee to facilitate such thorough investigation.

On motion, duly seconded, the amendments were adopted.

On motion, duly seconded, the resolution as amended was adopted.

Dr. Lee D. Cady, St. Louis, introduced the following amendment to the By-Laws for consideration at the Wednesday session of the House of Delegates:

Amend Section 3, Chapter VI, by striking out after the word "By-Laws" in the fourth line the following words: "Three members of the Council, elected by the Council, together with the President, President-Elect and the Secretary, shall be the Executive Committee of the Council and shall constitute a quorum for the transaction of business excepting that concerning the conduct of a member, when a majority of the membership of the Council shall be necessary to act; provided, the action of the Executive Committee of the Council shall be subject to the approval of the Council," so that when amended it shall read:

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws.

Dr. H. A. Lowe, Springfield, offered the following resolution:

Resolved, That the unit rule of voting now in effect by delegates from St. Louis and Kansas City be hereafter prohibited.

After discussion by Drs. Robert E. Schlueter, St. Louis; R. Emmet Kane, St. Louis; Curtis H. Lohr, St. Louis; Herbert L. Mantz, Kansas City, and H. A. Lowe, Springfield, the resolution was referred to the Reference Committee on Resolutions.

A telegram of greeting from the Southern Medical Association was presented and upon motion of Dr. A. R. McComas, seconded and carried, the Secretary was instructed to send a reply.

Dr. A. R. McComas, Surgeon, moved that the five Councilors from the even numbered districts be elected for one year and those from the odd numbered districts be elected for two years. The motion was seconded and carried.

Invitations were extended to the Association for the 1938 Session by Dr. E. B. Robichaux, Excelsior Springs, for Excelsior Springs; by Dr. H. A. Lowe, Springfield, for Springfield, and by Dr. J. S. Summers, Jefferson City, for Jefferson City. Jefferson City was selected for the 1938 Session.

On motion the House of Delegates adjourned until Wednesday afternoon.

Wednesday, May 12, 1937—Afternoon Session

The House of Delegates convened in joint session with the General Assembly at 2:45, with the President, Dr. Ross A. Woolsey, St. Louis, in the Chair.

Dr. Carl F. Vohs, St. Louis, presented the following discussion on "Resettlement Administration Program."

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

It was my privilege one year ago to make a report to the Missouri State Medical Association on medical economics. That duty again devolves upon me today.

The world we live in has been engaged these recent years in an ecstasy of vast and lofty planning. Certain changes or trends under way in the last few years and accentuated in the present turmoil, participated in by Capitol, Labor and the Government, will have a definite bearing upon the medical profession in this country. If organized medicine is not ever alert, the medical profession will be given to Labor as a political peace offering by Capital and the Government and the history of Germany under Bismarck and the history of England under Lloyd George will be repeated in America. The history of medicine in these

two countries demonstrates in no uncertain terms the defects and abuses of political machination.

The future and safety of medicine lies in a profession that will be highly defined, highly disciplined, restricted in personnel, better protected and more efficient. The control must not be governmental, but must be professional and internal.

If one will examine carefully the program inaugurated by this Association he will find in it all of these provisions and the answer to the Capper bill which was recently introduced into the United States Senate.

The social security program of the Roosevelt Administration, including its larger aspects of compulsory health insurance of American wage workers and low salaried wage earners, relies on European precedence for guidance. Once such a system becomes established, it is next to impossible to repeal it or bring about adequate modifications. The medical profession would be divided into two classes, those practicing state insurance and those who continue under a system of free competition in private practice. There would be a poor man's doctor and a rich man's doctor, a comparison which at once will be odious to both the American public and the American physician. It is fundamentally opposed to our American conceptions of life and democracy. It is definitely European in its concepts.

The Committee on Medical Economics of the Missouri State Medical Association for the last two years has undertaken to integrate all its activities so as to assure cooperation and prevent overlapping. We have accepted the challenge that it is the duty of the medical profession to deliver the service of medicine to the people of the United States.

If financial and medical resources are to be used effectively and economically, exhaustive examinations are necessary before any assistance is given.

The Missouri State Medical Association has assisted in the planning of a Health Security Administration of Missouri. It is to act as a "filter" system to be used in the selection of those who are to receive medical, dental and hospital care.

The general plan to be followed in so far as is possible is the one being established in St. Louis which consists of the Medical Dental Service Bureau, Group Hospitalization and the Central Admitting Bureau. A brief outline follows:

A. The county medical society appoints in each county of the state

1. A medical filter, a committee of physicians, a subcommittee of the State Committee on Medical Economics, who shall decide on each applicant as to:

- (a) Medical need.
- (b) Medical necessity and urgency.
- (c) Necessary period of hospitalization and treatment.

B. The judge of probate appoints, with advice and counsel of the county medical society's representatives,

1. An economic filter, a social servicing agency which shall determine:

- (a) If the patient can pay the existing fee of the private physician.
- (b) If the patient or legal guardian is temporarily unemployed or a worker in the low-wage bracket who can pay the fee of the private physician on a "deferred payment plan."
- (c) If the patient is one who cannot now or apparently at any future time pay anything to his private physician.

An applicant for service should be referred first to the Central Admitting Bureau or economic filter. If

he is judged to be in the economic group he is worthy of consideration by the medical filter to which he is next referred. If his condition is medically needy or urgent his commitment by the judge of probate should follow. All other cases rejected by either filter should return as private patients to the physician of their choice for disposition.

In order to further develop our established plan and to meet any social security program that may be presented, this Committee recommends a complete state wide survey relating to medical care. It advises that this be done by the economic committees in each county society. These committees will work with the State Committee on Medical Economics in cooperation with the State Board of Health. We feel that only in this way can a satisfactory survey be made in the quickest time, at the lowest cost. Following this survey, the Committee recommends that the state be divided into economic units. Each unit can support the hospital and clinic facilities through health security administrations and if necessary supplemented by county and state funds. Group hospital insurance could certainly be developed in each economic unit and all of them united in a state wide program. If this is brought about we would soon find our younger men going into these communities to practice.

In a survey recently made in Cedar, Hickory, Polk and St. Clair counties, we found the following facts about the ages of physicians:

Age Group	Number
20-29	2
30-39	5
40-49	0
50-59	9
60-69	13
70-79	7
80-89	2
Average age, 60 years.	Total, 38

The plan seems rather complicated but in reality it is simple and will unfold as it is put into practice.

In a report of this kind and in the time allotted, it is impossible to present a detailed account of all the work the Committee has done in the last year. We shall merely touch upon those outstanding features pertinent at this time and of interest to you.

One of the important topics before the Committee for discussion recently was the Davies County Resettlement Contract controversy. After due consideration of all the evidence presented through personal conferences with Dr. W. C. Woodward, Bureau of Legal Medicine and Legislation of the American Medical Association, with Dr. Olin West and through the personal investigation by Dr. A. S. Bristow, Councilor of the District in which Davies County is located, and after the personal questioning of S. S. Kleinschmidt, local director of the Resettlement Administration, the Committee on Medical Economics feels this prepayment plan for medical and dental care is highly unethical and that it should not be entered into by any member of the Missouri State Medical Association. On investigation, the Committee finds that there are four members in Davies County; that there are seven former members who are eligible and that there are three noneligible nonmembers, which makes a total of fifteen physicians in the county. The Committee feels that a complete survey should be made of the entire state and that special effort should be made by the special committees to get eligible nonmembers into the state organization. This will be most important when the state organization is called

upon in the next four years to meet social security problems of the nature we are discussing.

Since the Davies County Resettlement controversy, the Department of Agriculture has taken over the activities of the Resettlement Administration. Dr. R. C. Williams of the United States Public Health Service has been made medical director and it is his duty to work with the organized profession in each state to develop plans for the rendering of medical service to the farmers who have made loans under the Resettlement Act. In Missouri there are 32,000 such families. The counties having the greatest number are as follow:

McDonald County, 139.
Butler County, 137.
Jackson County, 136.
Caldwell County, 123.
Miller County, 123.
St. Francois County, 118.
Saline County, 116.
Platte County, 115.
Putnam County, 115.
Vernon County, 112.

At a recent meeting in Chicago at which were representatives from state societies from Ohio, Indiana, Illinois, Iowa and Missouri, we agreed to handle these cases more or less as we handled the FERA program; on a case unit basis, a definite fee schedule and for a limited time.

After numerous conferences the Committee on Medical Economics, the Executive Committee of the Missouri State Medical Association and representatives of the Resettlement Administration have suggested the following program to provide medical care for the clients of the Resettlement Administration in Missouri. An outline of the program suggested is as follows:

- I. (a) That the county medical societies recommend to the doctors of medicine in their counties that they furnish to the Resettlement Administration clients and their families the services usually rendered by a family physician at such fees as the families are able to pay. This service is to consist of home and office care, including obstetrical care and ordinary drugs. It will not include major operations or hospitalization.
- (b) A specified maximum fee for all surgical operations shall be agreed to by representatives of the Resettlement Administration and each county medical society.
- II. The Missouri State Medical Association will recommend:
 - (a) To the county medical societies that they urge the physicians of their counties to cooperate with the Resettlement Administration in the matter of providing medical care for their clients.
 - (b) That all questions concerning bills for medical services rendered under any program that is drawn up with the Resettlement Administration be referred to the Committee on Medical Economics of the local county medical society, with the president and secretary as ex officio members, or to a special committee appointed for this purpose. If this committee cannot come to an agreement in regard to these bills with all parties concerned, the questions will then be referred to the Committee on Medical Economics of the Missouri State Medical Association.

- (c) That the county medical society work with the County Rural Rehabilitation Supervisor and advise him of the physicians who have agreed to participate in this program.

III. The Resettlement Administration will:

- (a) Have a representative, the County Rural Rehabilitation Supervisor, meet with the county medical society or its committee and advise them as to the program of the Resettlement Administration and the names of the clients in the county.
- (b) The County Rural Rehabilitation Supervisor will advise the clients of the names of physicians who are willing to cooperate. The client will select the physician of his choice. The County Rural Rehabilitation Supervisor will then give to the client a memorandum for the physician showing that he is a client of the Resettlement Administration. The client and physician will then work out an agreement.
- (c)
 1. The County Rural Rehabilitation Supervisor will take an application for loans for the payment of the fee agreed upon. If the loan is approved, the supervisor will advise the physician. These funds will be made available for payment at such intervals as may be deemed advisable.
 2. The Rural Rehabilitation Supervisor will endeavor to secure funds either through grants or loans to take care of emergency surgical cases.
- (d) The representatives of the Resettlement Administration, State and Regional, will work with the Missouri State Medical Association in this program, it being thoroughly understood by the Resettlement Administration representatives that such a program will be made available only to those low-income farm families that are the responsibility of the Resettlement Administration.

On analysis it is readily seen that the Resettlement Administration Program can be readily administered by the machinery we have set up, i. e., the Health Security Administration of Missouri.

In due time government funds will be allotted for the control and care of syphilis. It has been rumored that the United States Public Health Service may want to maintain complete control of the program by establishing clinics throughout the land under the control of government employed physicians. If this is done the services of the program will be definitely hampered if not completely dissipated. We have examples in the experience of city governments in venereal clinics. This job must be done by the medical profession as a whole, every doctor must be a public health officer. The public must pay what it can for this care. What it can pay must be determined by a "filter system" such as we are establishing. Only in this way can government and the taxpayers of this country be assured that the money set aside to subsidize this program is doing all it should do and going where it should go.

Refresher courses should be instituted by the State Association; numerous clinics should be held and medical societies should agree in so far as possible on who should treat these cases and how they should be cared for in a routine way.

If all this is accomplished syphilis will be controlled in a thorough and business like manner.

The Committee has made a complete study of other prepayment plans and employees' benefit associations

not only in Committee but a representative has sat with the Judicial Council of the American Medical Association. It is the Committee's opinion that this evidence should be carefully gone into by the Council of the Missouri State Medical Association in session with the Committee on Medical Economics so that we can comply with the By-Law on prepayment plans passed at the last meeting of the House of Delegates at Columbia.

In its study the Committee recognized that a number of employees' benefit associations are interstate problems and that a local or even a state society could do little to control them. With the approval of Dr. Follansbee, Chairman of the Judicial Council, Dr. Woodward and with the consent of Dr. R. G. Leland, to fulfill the additional requirements the Committee recommends that the Missouri State Medical Association requests the A. M. A. to make the Bureau of Medical Economics the Council of Medical Economics by amendment of the By-Laws. As such, it could be a fact finding body and the representative and prosecutor for a state or several states before the Judicial Council. In that way medical ethics could be enforced through the A. M. A., local and state societies at the same time. Medical ethics then would mean something and the problems that have arisen from contract practice, from corporate practice and in the development of employees' benefit associations could be finally solved. Definite rules would be established by the Judicial Council for local ethics committees to enforce, backed up by all of organized medicine.

You will remember that last year our Committee recommended the Medical Lein Law for adoption. The State Legislative Committee decided not to introduce this bill but expects to amend the Hospital Lein Law if that is introduced.

A complete revision of the Workman's Compensation Law to make it comparable to the New York law is recommended. A complete study of this law is contemplated in round table discussions with Associated Industries, Organized Labor, Industrial Insurance Companies and the State Bar Association. As soon as a bill satisfactory to all is drafted, it is to be introduced into the State Legislature. This may take some time to accomplish but it is felt that with only such support can a bill be introduced into the State Legislature.

The Committee recommends the introduction of a resolution into the next meeting of the State House of Delegates directing the Legislative Committee to introduce a Basic Science Law bill into the State Legislature as soon as possible and develop a state wide campaign for its adoption.

To summarize, may I now give you the program of the State Committee on Medical Economics for 1937.

1. To develop a Resettlement Administration program.

2. Develop fundamental principles to govern existing employees' benefit association prepayment plans.

3. Develop the Missouri state economics program.

4. To introduce into the State Legislature the following laws:

- a. Revised Workmen's Compensation Act.

- b. Medical Lein Law.

- c. Basic Science Law.

- d. A law to inaugurate the integration of the profession.

The Committee recognizes that this cannot be accomplished in a day, a month or even in a year. It cannot be accomplished in a revolutionary way. It must be done by incessant patience and by dominant leadership against selfish interests. Organized med-

icine must be "Master in its own house." It must not be dominated by politicians or selfish lay interests.

Discussion was by Drs. C. P. Dyer, St. Louis; L. S. James, Blackburn; L. M. Lyons, Pierce City; Rollin H. Smith, Rich Hill; Ralph R. Wilson, Kansas City, and Carl F. Vohs, St. Louis.

Dr. W. H. Breuer, St. James, moved that the Association go on record as endorsing the plan temporarily as recommended by the Committee on Medical Economics. The motion was seconded and carried.

The House of Delegates was called to order at 3:30.

The minutes of the previous meeting were read by Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary and on motion approved.

Dr. Ross A. Woolsey, St. Louis, President, appointed the following committee to make the study recommended in the resolution presented by Dr. E. Lee Miller, Kansas City: Drs. E. Lee Miller, Kansas City, Chairman; Ralph R. Wilson, Kansas City, and Dudley S. Conley, Columbia.

Nomination for President-Elect

Dr. C. A. W. Zimmermann, Cape Girardeau, nominated Dr. B. W. Hays, Jackson, for President-Elect. Drs. Robert E. Schlueter, St. Louis; Herbert L. Mantz, Kansas City, and W. H. Breuer, St. James, spoke in behalf of the nomination of Dr. Hays and Dr. H. L. Kerr, Crane, moved the nominations be closed. Dr. Hays was elected unanimously.

Report of the Committee on Nominations

For delegates to the American Medical Association: Delegate, Dr. E. Lee Miller, Kansas City; alternate, Dr. M. Pinson Neal, Columbia. Delegate, Dr. Ross A. Woolsey, St. Louis; alternate, Dr. C. E. Burford, St. Louis.

For Vice Presidents: Dr. W. A. Bloom, Fayette; Dr. E. L. Johnston, Concordia, and Dr. Samuel E. Mitchell, Malden.

For Councilors:

1st District.....	A. S. Bristow, Princeton
2nd District.....	H. B. Goodrich, Hannibal
3rd District.....	Curtis H. Lohr, St. Louis
4th District.....	R. B. Denny, Creve Coeur
5th District.....	M. Pinson Neal, Columbia
6th District.....	A. J. Campbell, Sedalia
7th District.....	E. P. Heller, Kansas City
8th District.....	R. M. James, Joplin
9th District.....	W. H. Breuer, St. James
10th District.....	A. H. Marshall, Charleston

Dr. E. Lee Miller, Kansas City, and Dr. Ross A. Woolsey, St. Louis, withdrew their names as Delegates to the American Medical Association. On motion the names of Dr. James R. McVay, Kansas City, and Dr. Carl F. Vohs, St. Louis, were substituted as Delegates.

On motion of Dr. L. M. Lyons, Pierce City, the name of Dr. H. L. Kerr, Crane, was substituted as Councilor of the Eighth District.

On motion of Dr. Robert E. Schlueter, St. Louis, duly seconded, the officers mentioned in the report of the Committee on Nominations with the substitutions made were declared elected.

Dr. B. W. Hays, Jackson, President-Elect, was escorted to the platform by Drs. C. A. W. Zimmermann, Cape Girardeau, and Herbert L. Mantz, Kansas City.

Dr. B. W. HAYS, Jackson: Mr. President and Members of the Missouri State Medical Association: A man would have to be void of emotion if he failed to be touched by what has been presented here this afternoon. I deem it a very great honor to be chosen President-Elect of a great scientific body such as this.

This honor, coming at this time in my life, is one of the greatest tributes I have ever had, and it is one that quite overwhelms me in every sense of the word.

I do not hail from a city; I have been a small town, country doctor all my life. I have been close to the earth, and therefore earthy. For some forty-three years I have been traversing the highways and byways of my county. I have not had and cannot bring to you the fruits of long training in some biological laboratory or some morbid pathology laboratory, but I have had to deal with the practical side of medicine.

I want to say this, that last year in Columbia I extended an invitation to this organization to meet in Cape Girardeau. I was there alone, but I bore the invitation from the Cape Girardeau County Medical Society. It was my earnest desire at that time that you meet and have a pleasant meeting here in Cape Girardeau, and I hope you have. The local physicians have done everything in their power to make it pleasant for you.

Inasmuch as I am a small town doctor I cannot bring you the fine erudition of my distinguished predecessor; I shall have to be content with something less. I do not want you to feel that I am conceited enough to believe that I was elected because I possessed qualities in any way superior to the humblest member of this Association. I rather take it that you have elected me as a sort of friendly gesture to the doctors of Southeastern Missouri. We have a splendid body of physicians here in Southeastern Missouri and they will be a great help in the State Association once their interest is engaged.

On behalf of the physicians and the medical profession of Southeastern Missouri, and for myself, I wish to thank you from the bottom of my heart for this evidence of your confidence, your friendship, and your esteem. My gratitude will be coequal with life itself.

The President appointed Drs. E. Lee Miller, Kansas City, and W. H. Breuer, St. James, to escort Dr. Dudley S. Conley, Columbia, the incoming President, to the platform, for installation.

Dr. Dudley S. Conley, Columbia, made the following appointments on standing committees:

James E. Stowers, Kansas, Committee on Scientific Work.

M. Pinson Neal, Columbia, Postgraduate Committee.

Walter Baumgarten St. Louis, Chairman (for 3 years); Buford G. Hamilton, Kansas City (for 2 years), Publication Committee.

W. L. Allee, Eldon, Chairman, Committee on Public Policy.

O. B. Zeinert, St. Louis, Committee on Defense.

H. W. Carle, St. Joseph, Committee on Medical Education and Hospitals.

Ellis Fischel, St. Louis, Chairman, Committee on Cancer.

E. L. Johnston, Concordia, Committee on Medical Economics.

G. Wilse Robinson, Kansas City, Chairman; Orr Mullinax, St. Joseph, Committee on Mental Health.

W. T. Stacy, St. Joseph, and E. Lee Dorsett, St. Louis, Committee on Maternal Welfare.

Frank G. Nifong, Columbia, Committee on Health and Public Instruction.

Floyd H. Spencer, St. Joseph, Chairman; Frank R. Teachenor, Kansas City, and O. B. Hall, Warrensburg, Committee on Constitution and By-Laws.

Wm. J. Stewart, Columbia, and F. H. Ewerhardt, St. Louis, Committee on Physical Therapy.

Downey H. Harris, St. Louis, Committee on Medical Legal Affairs.

M. L. Klinefelter, St. Louis, Chairman; Frank D. Dickson, Kansas City; Wm. J. Stewart, Columbia; H. K. Wallace, St. Joseph; James D. Horton, Springfield, Committee on Fractures.

W. H. Breuer, St. James, Chairman; Lee D. Cady, St. Louis; J. Milton Singleton, Kansas City; T. W. Cotton, Van Buren; O. C. Gebhardt, Oregon; M. Pinson Neal, Columbia, Committee on Study of Medical Practice Act.

On motion duly seconded these appointments were confirmed.

Dr. M. Pinson Neal, Columbia, Chairman, reported for the Reference Committee on Amendments to the Constitution and By-Laws as follows:

REPORT OF REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

The amendment to Chapter VII, Section 1, was adopted.

The amendment to Chapter VII, Section 13, was adopted.

The amendment to Chapter VI, Section 3, was adopted.

Dr. Frank G. Mays, Washington, offered the following substitute resolution for the Reference Committee on Resolutions:

Resolved, That the unit rule of voting now in effect and practiced by some of the component societies of the Missouri State Medical Association be hereafter prohibited.

The resolution was not adopted.

Dr. Frank G. Mays, Washington, offered the following resolution:

Resolved, That this House of Delegates tender to the Cape Girardeau County Medical Society and to the Local Committee on Arrangements a vote of thanks for the most excellent manner in which they have entertained the Missouri State Medical Association at its Eightieth Annual Session.

This resolution was adopted.

DR. W. L. ALLEE, Eldon: The House of Representatives, in session for the first time this week, today receded amendments 3 and 4 of Senate Bill No. 3. I would like to move that this Association approve the sending of the following telegram:

HON. LLOYD C. STARK, GOVERNOR,
Jefferson City, Mo.

The Missouri State Medical Association now in session desires to heartily congratulate you for initiating and sponsoring this great humanitarian act creating a State Hospital for research and for the treatment of those indigent afflicted with cancer. Will you please convey to the House and Senate our appreciation of their action in passing this bill?

W. L. ALLEE,
J. FRANK HARRISON,
W. H. BREUER.

The motion was seconded and carried.

On motion the House of Delegates adjourned *sine die*.

MEETING OF THE COUNCIL

Marquette Hotel

Monday, May 10, 1937—First Session

The first meeting of the Council convened at a luncheon meeting at noon, Monday, May 10, 1937, the Chairman, Dr. A. R. McComas, Sturgeon, presiding:

Roll call showed the following Councilors present:

2nd District..... W. T. Elam, St. Joseph
4th District..... A. S. Bristow, Princeton
6th District..... J. S. Gashwiler, Novinger
7th District..... W. D. Pipkin, Monroe City
8th District..... Frank G. Mays, Washington
9th District..... A. R. McComas, Sturgeon
13th District..... E. P. Heller, Kansas City
15th District..... L. J. Schofield, Warrensburg

16th District..... C. W. Luter, Butler
17th District..... Guy Titsworth, Sedalia
18th District..... W. L. Allee, Eldon
19th District..... J. S. Summers, Jefferson City
20th District..... Curtis H. Lohr, St. Louis
22nd District..... B. W. Hays, Jackson
24th District..... T. W. Cotton, Van Buren
26th District..... W. H. Breuer, St. James
27th District..... Leslie C. Randall, Licking
28th District..... W. M. West, Monett
29th District..... R. M. James, Joplin
30th District..... R. B. Denny, Creve Coeur
31st District..... H. A. Lowe, Springfield

The Secretary read the minutes of the previous meeting, which on motion, duly seconded, were approved and made a part of the report of the Council to the House of Delegates.

On motion, duly seconded, the Message of the President was approved, the Council concurring in the recommendation for the appointment of a special committee for the study of the control of syphilis in Missouri.

On motion, duly seconded, the report of the Secretary was adopted.

On motion, duly seconded, the report of the Committee on Publication was adopted. The recommendation of the Committee to authorize the Secretary to solicit subscriptions for THE JOURNAL from eligible nonmember physicians was approved.

On motion, the report of the Committee on Defense was adopted.

On motion, the report of the Committee on Health and Public Instruction (McAlester Foundation) was approved.

Dr. A. R. McComas, Sturgeon, Chairman, appointed the Auditing Committee as follows: Drs. W. T. Elam, St. Joseph; R. B. Denny, Creve Coeur, and H. A. Lowe, Springfield.

On motion, duly seconded, the Council recommended the nomination of Dr. Henry D. Grady, Miami, for Affiliate Fellowship in the American Medical Association.

The resignation of Dr. B. W. Hays, Jackson, Councilor of the 22nd District, was accepted with regrets.

On motion, duly seconded, a committee was appointed by the Chairman to draft suitable resolutions in regard to the death of Dr. J. C. B. Davis, Willow Springs, and that a copy of same be sent to the bereaved family and a copy of same spread on the minutes.

The following resolutions were adopted:

WHEREAS, Dr. J. C. B. Davis, Willow Springs, had long been a faithful, loyal and efficient member of the Missouri State Medical Association and had served in the capacity of Councilor and as Chairman of the Publicity Committee, and

WHEREAS, By his graciousness, integrity and sincerity he had endeared himself to many members of the Association, and

WHEREAS, His death is a great loss to organized medicine and to his many friends, therefore be it

Resolved, That the Council of the Missouri State Medical Association in session in Cape Girardeau, 1937, expresses its grief at his untimely death and sympathy for his family, and be it further,

Resolved, That these resolutions be made a part of the minutes of this session and that a copy be sent to his family.

The Secretary was instructed to write a letter of condolence to the bereaved family of former Councilor Dr. J. B. Wright, Trenton.

The Assistant Secretary was instructed to write letters of appreciation and express best wishes for speedy recoveries to the following: Dr. E. J. Goodwin, St. Louis, Secretary; Dr. John H. Timberman, Chillicothe, Councilor, 11th District, and Dr. P. S. Tate, Farmington, Councilor, 25th District.

Dr. L. M. Lyons, Pierce City, Lawrence County, presented his claim as to the hyphenation of Barry-

Lawrence-Stone County Medical Societies. Dr. H. L. Kerr, Crane, endorsed his remarks. Dr. L. H. Ferguson, Monett, said that he did not want to hyphenate if they were going to lose their identity and he did not think any members of the Barry County Medical Society would want to do so. After discussion, Dr. H. A. Lowe, Springfield, moved that the Lawrence-Stone County Society find out if they have one or two charters for these societies and report to the Council in November.

Dr. R. B. Denny, Creve Coeur, moved and was seconded by Dr. E. P. Heller, Kansas City, that \$200 be appropriated to purchase a gift for Judge Fred L. English in lieu of fee for legal services rendered to the Association in the last five years.

On motion the Council adjourned.

Wednesday, May 12, 1937—Second Meeting

The second meeting of the Council convened May 12 following the final meeting of the House of Delegates with Dr. W. H. Breuer, St. James, acting as temporary chairman.

Roll call showed the following Councilors present:

1st District.....	A. S. Bristow, Princeton
2nd District.....	H. B. Goodrich, Hannibal
3rd District.....	Curtis H. Lohr, St. Louis
4th District.....	R. B. Denny, Creve Coeur
5th District.....	M. Pinson Neal, Columbia
6th District.....	A. J. Campbell, Sedalia
7th District.....	E. P. Heller, Kansas City
8th District.....	H. L. Kerr, Crane
9th District.....	W. H. Breuer, St. James
10th District.....	A. H. Marshall, Charleston

On motion of Dr. R. B. Denny, Creve Coeur, seconded by Dr. H. L. Kerr, Crane, Dr. M. Pinson Neal, Columbia, was elected Chairman of the Council by acclamation.

On motion of Dr. A. S. Bristow, Princeton, duly seconded, Dr. H. L. Kerr, Crane, was elected Vice-Chairman of the Council by acclamation.

The minutes of the previous meeting were read by Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary, and on motion adopted.

The Auditing Committee reported that they found the books of the Association correct and well kept.

On motion, duly seconded, this report was adopted.

Dr. W. H. Breuer, St. James, moved that the present Secretary, Treasurer and Assistant Secretary be continued until the next meeting of the Council.

The motion was seconded and carried.

A motion that the Council meet in July, the date to be set by the Chairman of the Council, was seconded and carried.

The following telegram was read by Mr. E. H. Bartelsmeyer, Assistant Secretary, and referred to the Committee on Defense for report at the next meeting of the Council.

DR. E. J. GOODWIN, Secretary,
MISSOURI STATE MEDICAL ASSOCIATION,
Academic Hall, Cape Girardeau, Mo.

Joint meeting of committee on unauthorized practice of law and committee on professional ethics and grievances American Bar Association held that medical defense plan of Ohio State Medical Association constituted unauthorized practice of law and that it was unethical for a lawyer to act for the association in furtherance of that plan. While this decision is binding only in Ohio State Medical Association and Ohio State Bar Association, it is a precedent that may call for some revision of the medical defense plans of other states. I am sending this telegram so that you may consider the expediency of obtaining authority while your Association is in session for such changes in Missouri plan as may be found necessary on further study. William C. Woodward.

Dr. Curtis H. Lohr, St. Louis, moved that prior to each meeting of the Council an agenda of the business to come before the Council be sent to each member of the Council. The motion was seconded and carried.

On motion the Council adjourned *sine die*.

MINUTES OF THE GENERAL MEETING

Southeast Missouri State Teachers College, Cape Girardeau

Monday, May 10, 1937—Afternoon Session

The scientific sessions were held in the Auditorium of Academic Hall of the Southeast Missouri State Teachers College, Cape Girardeau, the first convening at 2:00 p. m. with Dr. James E. Stowers, Kansas City, Vice President, in the chair. Members presented addresses as follow:

Dr. E. A. Miller and Dr. T. M. Paul, St. Joseph, "Etiology of Primary Glaucoma and Its Physiologic Treatment." Discussed by Dr. E. A. Miller, St. Joseph.

Dr. L. G. McCutchen, St. Louis, "Treatment of New Growths With Roentgen Ray Therapy Using the Contact Method: X-Ray Tube Placed in Direct Contact With Skin."

Dr. W. C. G. Kirchner, St. Louis, "Acute Diverticulitis of the Sigmoid."

Dr. Donald R. Black, Kansas City, "Modern Treatment of Diabetes." (Read by title.)

Dr. G. Wilse Robinson, Kansas City, "The Addiction of Patients to Various Barbituric Acid Derivatives."

Dr. A. Graham Asher, Kansas City, "Improving the Care of the Cardiac Patient in the Small and Community Hospital."

Dr. Roland M. Klemme, St. Louis, "Accurate Differential Section for the Treatment of Trigeminal Neuralgia."

Tuesday, May 11, 1937—Morning Session

An address of welcome was delivered by Dr. Walter W. Parker, Cape Girardeau, President, Southeast Missouri State Teachers College, on "A Pedagogue Looks at the Doctors."

Dr. Ross A. Woolsey, St. Louis, Address of the President, "The Country Doctor."

Dr. Dudley S. Conley, Columbia, Address of the President-Elect, "The Individualism of Medical Practice."

Dr. A. E. Hertzler, Halstead, Kansas, "Conservative Operations on the Uterus."

Dr. Herbert J. Rinkel, Kansas City, "Respiratory Allergy: Its Diagnosis and Treatment."

Dr. Lee Pettit Gay, St. Louis, "Diagnosis and Treatment of Food Allergy."

These two papers were discussed by Dr. Joseph Grindon, St. Louis, and Dr. Gay.

Dr. A. Morris Ginsberg, Kansas City, "The Doctor's Heart."

Dr. Richard L. Bower, Kansas City, "Treatment of Facial Injuries."

Tuesday, May 11, 1937—Afternoon Session

Dr. Melvin A. Roblee, St. Louis, "Vaginitis and Cervicitis."

Dr. Norman F. Miller, Ann Arbor, Michigan, "How Bad Is Obstetric Care?"

Dr. Quitman U. Newell, St. Louis, "Gonorrhea in the Female."

Dr. John R. Caulk, St. Louis, "Gonorrhea in the Male."

These two papers were discussed by Drs. Julius Frischer, Kansas City, and M. T. Morrison, St. Louis.

Dr. R. Lee Hoffmann, Kansas City, "Presentation of Complicating Urological Diagnoses."

Dr. John M. McCaughan, St. Louis, "Prolonged Stimulation of Autonomic Nerves: Immediate and Remote Effects on the Bladder, Rectum and Colon." Discussed by Dr. Albert Kuntz, St. Louis.

Dr. Cyril M. MacBryde, St. Louis, "Borderline and Atypical Hyperthyroidism."

Dr. Duff S. Allen, St. Louis, "Toxic Goiter in the Aged." Discussed by Dr. Robert Bartlett, St. Louis.

Tuesday, May 11, 1937—Evening Session

Dr. Ellis Fischel, St. Louis, "Early Recognition and Treatment of Cancer."

Dr. E. Lee Miller, Kansas City, "Appendicitis."

Wednesday, May 12, 1937—Morning Session

Dr. H. Rommel Hildreth, St. Louis, "Retinal Detachment: Its Recognition and Treatment." Discussed by Dr. C. R. Bruner, Columbia.

Dr. Herman E. Pearse, Rochester, New York, "Care of Infections of the Neck and Their Complication, Mediastinitis."

In the absence of Dr. Clinton K. Smith, Kansas City, his paper was read by Dr. Otto J. Wilhelmi, St. Louis. Discussed by Drs. Wilhelmi and Neil S. Moore, St. Louis.

Dr. Neil S. Moore and Dr. Stephen M. Tapper, St. Louis, "Chronic Prostate: What the Average Practitioner Should Know About It."

Dr. Leonard T. Furlow, St. Louis, "Importance of the Early Recognition of Neurosurgical Conditions."

Dr. Wendell G. Scott and Dr. Sherwood Moore, St. Louis, "Roentgen Kymography: A New Aid in the Diagnosis of Heart Disease."

Dr. Paul F. Hunt, Kansas City, "Diagnosis and Treatment of Cholelithiasis and Extraductal Stones."

Dr. J. Laurence Jones, Kansas City, "Reduction of Femoral Fractures Using Positive Radiographic Control."

Wednesday, May 12, 1937—Afternoon Session

Dr. O. F. Bradford, Columbia, "The Function of the Child Welfare Program in the State."

Dr. Paul F. Fletcher, St. Louis, "The Function of the Maternal Welfare Program in the State."

Dr. John S. Knight, Kansas City, "Diagnosis and Treatment of Diseases of the Esophagus."

Dr. Carl C. Beisbarth, St. Louis, "Errors in Refraction in Children."

COMMITTEE ON MATERNAL WELFARE DINNER MEETING

Monday, May 10, 1937—Marquette Hotel

The Committee on Maternal Welfare held a dinner meeting at the Marquette Hotel, May 10, the Chairman of the Committee, Dr. Ralph R. Wilson, Kansas City, presiding.

Reports on maternal deaths were made by members of the Committee.

Dr. Norman F. Miller, Ann Arbor, Michigan, acted as critique and opened the discussion, followed by Drs. C. W. Greene, Columbia; A. H. Warshaw, Kansas City; Paul F. Fletcher, St. Louis; A. H. Thornburgh, West Plains; L. M. Lyons, Pierce City; R. O. Muether, St. Louis, and C. W. Luter, Butler.

REGISTRATION AT EIGHTIETH ANNUAL SESSION

Allee, Warren L., Eldon
Allen, Duff S., St. Louis
Altheide, J. Paul, St. Louis

* Visitor

* Ambrose, Edwin, Cape Girardeau
* Appel, O. W., St. Louis
Appleberry, Charles H., Flat River

Aquino, Philip J., Caruthersville
Asher, Arthur G., Kansas City
* Ashley, Hugh, Cape Girardeau
Ashley, Hugh V., Cape Girardeau
* Baker, H. H., St. Louis
Baker, James M., Columbia
Baldwin, Paul, Kennett
* Balfour, W. D., Kealia
Kauai, Hawaii
Barber, Moses B., Fredericktown
* Barks, W. H., Perryville
Barnes, Asa, Dexter
Barron, W. Harry, Fredericktown
Bartelsmeyer, E. H., St. Louis
Bartlett, Robert W., St. Louis
Bartlett, Willard, St. Louis
Baumgarten, Walter, St. Louis
Becke, William G., St. Louis
Beisbarth, Carl C., St. Louis
Berry, John W., Cape Girardeau
* Beyreuther, P. F., St. Louis
Black, Mervin H., Joplin
Blaylock, George A., Perryville
Blaylock, R. D., Oak Ridge
Bloom, W. A., Fayette
Bourke, Timothy S., Kansas City
Bower, Richard L., Kansas City
Bradford, Oscar F., Kansas City
Brandon, John P., Essex
Brandon, Walter L., Poplar Bluff
* Brasher, Rodney, Cape Girardeau
* Braun, Miss Bessie, Cape Girardeau
* Breckenkamp, A. W., St. Louis
Breckenridge, E. O., Maplewood
Bredall, Jerome J., Perryville
Breuer, Robert E., Newburg
Breuer, William H., St. James
* Brinkopf, Miss Theresa, Cape Girardeau
Bristow, Arthur S., Princeton
Britt, Robert E., St. Louis
Broeder, William H., St. Louis
* Brooks, Clyde, Carbondale, Ill.
* Broughton, Miss Martha, Cape Girardeau
Brown, E. Eugene, St. Louis
Brown, Eugene R., St. Louis
* Brown, Loren L., Kansas City
Bruner, Claude R., Columbia
Burford, Cyrus E., St. Louis
Butler, Fred E., Salem
Cady, Lee D., St. Louis
Campbell, Albert J., Sedalia
Campbell, Cecil S., St. Louis
Carle, Horace W., St. Joseph
* Caruthers, J. Henry, Cape Girardeau
* Casey, W. E., Dexter
Castles, Charles C., Caruthersville
Castles, John E., Kansas City
Caulk, John R., St. Louis
Chandler, John J., Lutesville
Chapman, James W., Jefferson City
* Chappel, Douglas E., Cape Girardeau
Cochran, J. H., Cape Girardeau
Coil, Paul E., Mexico
Cole, Paul F., Springfield
Compton, J. Roy, St. Louis
Conley, Dudley S., Columbia
Conrad, Adolph H., St. Louis
* Conrad, Lucille M., Cape Girardeau
Conrad, Raymond C., Portageville
Cook, Jerome E., St. Louis

Cooper, Maurice E., Columbia
Cooper, Raymond G., St. Charles
Cope, Edwin G., Hornersville
Cotton, Tolman W., Van Buren
* Craham, Bernadette, Kansas City
Creech, Joseph C., Troy
Crites, Edward, Sedgewickville
* Crouch, Joe C., Cape Girardeau
Cunningham, Harvey L., Cape Girardeau
Custer, Matthew L., St. Louis
* Daley, Miss Cora, Cape Girardeau
Danis, Peter G., St. Louis
Dann, David S., Kansas City
Davis, Frank L., St. Louis
* Davis, Mrs. Jean, Cape Girardeau
Dawson, John W., Eldorado Springs
* Dawson, Miss Opal, Cape Girardeau
Day, Anthony B., St. Louis
* Deneke, Miss Irma, Cape Girardeau
* Denman, Clinton, Cape Girardeau
Denny, H. M., Union
Denny, Robert B., Creve Coeur
DeTar, Burleigh E., Joplin
* DeVilbiss, Edgar F., Kansas City
Dieckroeger, Manuel L., Marceline
* Dierker, B. J., Fort Madison, Iowa
Doan, Deborah, Bakersfield
Doggett, Sylvester, Cape Girardeau
Dorris, George T., Illmo
Dorsett, E. Lee, St. Louis
* Dorton, Miss Edna, Cape Girardeau
Drace, James J., Cape Girardeau
Drake, Avery A., Rolla
* Du Flon, Leon, Chicago, Ill.
Dumbauld, Bunn A., Webb City
Duncan, Ralph E., Kansas City
Dunn, Frank P., Valley Park
Dyer, Clyde P., St. Louis
* Dzurilla, Miss Kathleen, Cape Girardeau
* Ebert, Alfred, Cape Girardeau
* Ebert, Erich F., Cape Girardeau
* Ebert, John, Cape Girardeau
Elam, William T., St. Joseph
Elliott, B. Landis, Kansas City
Elrod, Dennis B., Cape Girardeau
Ernst, Edwin C., St. Louis
* Estel, Miss Georgie, Cape Girardeau
Estes, Albert M., Jackson
Fallet, Charles E., De Soto
Ferguson, L. H., Monett
* Ferrell, Miss Lela, Cape Girardeau
Finley, Freeman L., St. Louis
Finney, William O., Chaffee
Fischel, Ellis, St. Louis
* Fishback, Vesta Lee, Cape Girardeau
* Fisher, J. A., Metropolis, Ill.
* Fisher, R. W., Metropolis, Ill.
Fletcher, Paul F., St. Louis
Ford, Walter W., Gordonville
* Forsch, Miss Clara, Cape Girardeau
Forsen, James A., St. Louis
* Fox, Ben, Carbondale, Ill.
Franklin, Lewis J., St. Louis
Frazier, Thomas R., Nevada
* Freeland, Mrs. Beulah, Cape Girardeau
Frick, John P., Kansas City

- Frischer, Julius, Kansas City
Fuerth, A. L., Cape Girardeau
Furlow, Leonard T., St. Louis
Gafney, George T., St. Louis
Garner, Lynn M., Poplar Bluff
*Garrison, James D., Cape Girardeau
Gashwiler, J. S., Novinger
Gay, Lee Pettit, St. Louis
*Gilbert, Wallace, St. Louis
Gilkey, Harry M., Kansas City
Ginsberg, A. Morris, Kansas City
Glassberg, B. Y., St. Louis
Glaze, Kenneth F., St. Louis
Glenn, Joseph E., St. Louis
Goodrich, Howard B., Hannibal
Gove, Herman S., Jefferson City
Green, John, St. Louis
*Greene, Charles W., Columbia
Grindon, Joseph, St. Louis
Grindon, Joseph, Jr., St. Louis
*Haddock, James N., Cape Girardeau
Hall, Oscar B., Warrensburg
*Halliburton, Sarah, Cape Girardeau
*Hamilton, T. R., Kansas City
Hammond, John J., St. Louis
Hampton, Oscar P., Jr., St. Louis
Hansel, French K., St. Louis
Hanser, Theodore H., St. Louis
Hardesty, Joel W., Hannibal
Hardy, John W., Sumner
Harms, Florian L., Salisbury
*Harris, Charles G., Festus
Harris, Downey L., St. Louis
Harris, Harold S., Troy
*Harris, William L., St. Louis
Harrison, J. Frank, Mexico
Hartnett, Leo J., St. Louis
Harwell, J. Lee, Poplar Bluff
Harwell, J. Lester, Poplar Bluff
Haw, Uriel P., Benton
Hawkins, N. William, Bonne Terre
*Haynes, Miss Louise, Cape Girardeau
Hays, Bernard W., Jackson
*Hays, Mrs. Mattie, Cape Girardeau
Hayward, John D., Clayton
*Heaton, Viola, Columbia
Heller, Edward P., Kansas City
*Helsby, F. K., Kansas City
*Henry, Jonike, Cape Girardeau
Henske, Andrew C., St. Louis
*Henson, Miss Maudie, Cape Girardeau
Herbert, Charles T., Cape Girardeau
Hershey, John H., St. Louis
*Hertzler, A. E., Halstead, Kansas
*Hess, Wayne J., Cape Girardeau
Hetherlin, T. Guy, Louisiana
Higdon, Edward E., Fredericktown
Hildreth, H. Rommel, St. Louis
*Hill, Victor W., Cape Girardeau
*Hoefler, Constance, Cape Girardeau
*Hoenig, G. L., St. Louis
Hoffmann, Robert L., Kansas City
Hope, Daniel H., Cape Girardeau
Horne, Albert H., Steelville
Horwitz, Alexander E., St. Louis
Howe, Louis F., Union
Hoxie, Derrick A., Poplar Bluff
*Visitor
- Ilunt, Paul F., Kansas City
*Hutchins, Miss Julia, Cape Girardeau
Ilux, William J., Essex
Jackson, William R., Maryville
James, Edward D., Joplin
James, Joseph D., Springfield
James, Luther S., Blackburn
James, Robert M., Joplin
*James, W. U., St. Louis
Jenkins, Joseph M., St. Charles
Jensen, Julius, St. Louis
*Johnson, Jean, Columbia
Johnston, Elza L., Concordia
Jolley, J. Frank, Mexico
Jones, Charles H., Piedmont
Jones, J. Lawrence, Kansas City
Jones, Vincent L., St. Louis
Kane, R. Emmet, St. Louis
*Keelan, H. S., New York
Keeling, Forrest V., Elsberry
Keim, John H., Kennett
*Keith, Roy, Anna, Ill.
Kemp, Thomas J., Clayton
Kerr, Frank T., Monett
Kerr, Homer L., Crane
Kerr, Russell W., Kansas City
Kibbe, Edgar A., California
*Killion, J. J., Portageville
*Kinder, Maurice W., Cape Girardeau
Kirchner, Walter C. G., St. Louis
*Kirkpatrick, Kelly G., Cape Girardeau
Klemme, Roland M., St. Louis
Knight, John S., Kansas City
Koch, Otto, St. Louis
Kotkis, A. J., St. Louis
Kramer, Fred, St. Louis
Kulowski, Jacob, St. Joseph
Lane, Clinton W., St. Louis
Lanning, Richard C., Ste. Genevieve
Lanning, Robert W., Ste. Genevieve
Lapp, Titus S., Fulton
Lee, A. E., Ilmo
Le Mone, David V., Columbia
Limbaugh, W. R., Hayti
*Limbaugh, Walter R., Cape Girardeau
*Lionberger, J. R., St. Louis
Lockwood, Ira H., Kansas City
Lohr, Curtis H., St. Louis
Long, David S., Harrisonville
Long, Frank B., Sedalia
*Long, Kenneth V., St. Louis
Love, William S., Charleston
*Low, Mrs. Jean, Cape Girardeau
Lowe, Horace A., Springfield
Luedde, Philip S., St. Louis
Lund, Herluf G., St. Louis
Luten, Joseph B., Caruthersville
Luter, Carter W., Butler
Lyons, Leonard M., Pierce City
McCaughan, John M., St. Louis
*McClure, Harold C., Cape Girardeau
McComas, Arthur R., Sturgeon
McCutchen, Lex G., St. Louis
*McDonald, Eugene F., Cape Girardeau
*McDonald, Miss Melba, Cape Girardeau
McFarland, A. Sidney, Rolla
*McGinty, T. J., Cape Girardeau
McKinstry, Karl V., De Soto
McMahon, Alphonse, St. Louis
McMurry, Marvin C., Paris
McVay, James R., Kansas City
MacBryde, Cyril M., St. Louis
Macdonnell, Carey R., Marshfield
Macnish, James M., St. Louis
Mallette, Cyrus, Crocker
- Mantz, Herbert L., Kansas City
Maples, F. H., Springfield
Marshall, A. H., Charleston
Martin, Albert J., East Prairie
*Martin, George, Cape Girardeau
Martin, Wilfred E., Odessa
*Martz, Del., St. Louis
*Mathis, Miss Oleta, Cape Girardeau
*May, L. G., Anna, Ill.
Mays, Frank G., Washington
Michael, Vernon E., St. Louis
*Miller, Mrs., Cape Girardeau
Miller, Eugene A., St. Joseph
Miller, E. Lee, Kansas City
*Miller, Norman F., Ann Arbor, Mich.
*Mitchell, Earl F., Excelsior Springs
*Mitchell, Eugene P., Cape Girardeau
Mitchell, Samuel E., Malden
Moore, Neil S., St. Louis
Morrison, Marriott T., St. Louis
Motzel, Albert J., St. Louis
*Mueller, Joseph, Cape Girardeau
Muether, Raymond O., St. Louis
Mulkey, James E., Fulton
*Mundorf, Otto, Cape Girardeau
Murphy, Amos M., Cape Girardeau
Murray, Lotis V., Pleasant Hill
Myers, George T., Macks Creek
Neal, M. Pinson, Columbia
Neff, Robert L., Joplin
Neilson, Charles H., St. Louis
*Nelson, David, Cape Girardeau
Newell, Quitman U., St. Louis
Nienstedt, Elam J., Sikeston
Nifong, Frank G., Columbia
*Nunn, Miss Gladys, Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
*Oberbeck, Miss Theresa, Cape Girardeau
O'Dell, Timothy T., Nevada
Oliver, Evert A., Richland
*O'Loughlin, Thomas, Cape Girardeau
Overholser, Milton D., Columbia
Padgett, Earl C., Kansas City
Pare, Elijah Y., Leeton
Parker, Harry F., Jefferson City
*Parks, William, Cape Girardeau
Paul, Thomas M., St. Joseph
Payne, Richard J., St. Louis
*Pearse, Herman E., Tonganoxie, Kansas
*Pearse, Herman E., Rochester, N. Y.
*Penzel, Miss Margaret, Cape Girardeau
Petersen, F. J., St. Louis
Piles, Thomas C., Piedmont
Pipkin, Walter D., Monroe City
Poe, Chester A., St. Louis
Powell, Rudolph V., St. Louis
Powers, John A., Warrensburg
Powers, Pierce W., St. Louis
Pulham, Madison J., St. Louis
*Qualls, Guy L., Fort Benning, Ga.
*Ralph, Mrs. Ruby, Cape Girardeau
Randall, Leslie, Licking
Reder, Francis, St. Louis
*Reeg, Kenneth R., Cape Girardeau
*Reynolds, Garland, Cape Girardeau
Rice, Earl R., St. Louis
- *Richardson, Mrs. Ethel, Cape Girardeau
*Riehl, Allan E., Cape Girardeau
Rinkel, Herbert J., Kansas City
Ritter, Raymond A., Cape Girardeau
*Ritzen, Frank, St. Louis
*Roberts, Paul H., Cape Girardeau
Robichaux, Eugene B., Excelsior Springs
Robinson, Edward E., Adrian
Robinson, G. Wilse, Kansas City
Robinson, G. Wilse, Jr., Kansas City
Roblee, Melvin A., St. Louis
Roebber, Harry M., Boune Terre
Rowling, E. Charles, Charleston
*Rossen, J. K., Tamms, Ill.
Rothwell, John H., Liberty
Ruddell, George W., St. Louis
Russell, Joseph, Cape Girardeau
Ryan, J. H., St. Joseph
Sample, George A., Chaffee
Sauer, William E., St. Louis
Scherman, Victor E., St. Louis
Schlueter, Robert E., St. Louis
Schofield, Linn J., Warrensburg
*Schott, Miss Louise, Cape Girardeau
*Schuette, Mrs. W. A., Cape Girardeau
Schuhmacher, N. R., Kearney
*Schwab, Miss, Cape Girardeau
Scott, Wendell G., St. Louis
Seabaugh, D. I. L., Jackson
Seabaugh, Oda L., Cape Girardeau
Seabaugh, Rusby, Jackson
Seibert, Daniel G., Jackson
Sewell, Walter S., Springfield
Sexauer, Arthur E., Ste. Genevieve
*Sharp, Miss Peggy, Cape Girardeau
Shelby, Mitchell H., Cape Girardeau
Shelton, Edward C., Eldon
Shirey, Arnold G., Hayti
Simon, Jerome I., St. Louis
Simpson, Morris B., Kansas City
Skinner, John O., Kansas City
*Sloan, Miss Ermine, Cape Girardeau
Smith, Anthony P., Festus
Smith, Clinton K., Kansas City
Smith, David E., Bonne Terre
Smith, Dudley, St. Louis
Smith, Edward S., Kirksville
*Smith, Mrs. Luella, Cape Girardeau
Smith, Rollin H., Rich Hill
Spaulding, William, Poplar Bluff
Speer, Asier J., Deering
Speidel, F. W., Senath
*Speidel, Roy E., Senath
Spence, Elbert L., Kennett
Spencer, Floyd H., St. Joseph
*Spencer, Lynn E., Cape Girardeau
*Spiedel, Harold W., Cape Girardeau
Stacy, Winton T., St. Joseph
Starkloff, Max, Jr., St. Louis
Stauffer, C. Gordon, Sedalia
Stein, Harry J., St. Louis
Stewart, William J., Columbia
Stowers, James E., Kansas City
*Strong, Miss, Cape Girardeau
Stryker, Garold V., St. Louis
Summers, Caldwell B., Kansas City

Summers, Joseph S., Jefferson City
 Talbott, Hudson, St. Louis
 Tapper, Stephen M., St. Louis
 *Taylor, H. O., Anna, Ill.
 *Templeton, J. S., Pinckneyville, Ill.
 *Thompson, Bernice, Cape Girardeau
 Thompson, R. L., St. Louis
 Thornburgh, A. H., West Plains
 *Tinsley, Miss Zallah, Cape Girardeau
 Titsworth, Guy, Sedalia
 Titterington, Paul F., St. Louis
 *Tom, Henry K., Delta
 Townsend, James A., House Springs
 Traubitz, Arnold, Leadwood
 Trigg, Joseph M., St. Louis
 Tygett, Glenn J., Cape Girardeau
 Van Cleve, John D., Malden
 Vinyard, George W., Jackson
 Vinyard, Robert, Springfield
 Vitt, Alvin E., St. Louis
 Vohs, Carl F., St. Louis
 Waddle, Theodore L., Holden
 Wadlow, Ernst E., St. Joseph
 Walther, Roy A., Overland

* Visitor

Washburn, J. Loren, Versailles
 *Watts, Ellen, Cape Girardeau
 Welch, Hooper W., St. Louis
 Wenzel, Peter S., St. Louis
 Wescoat, William H., Cape Girardeau
 *West, A. T., St. Louis
 West, William M., Monett
 Wilkens, John A., St. Marys
 *Wilks, Irene, Cape Girardeau
 *Williams, H. Lee, Philadelphia, Pa.
 *Wilson, Charles F., Cape Girardeau
 Wilson, Ralph R., Kansas City
 Wilson, Robert P. C., Platte City
 Wimp, J. J., Kirksville
 *Wirthlin, E. M., St. Louis
 *Wittrock, Miss Nora, Cape Girardeau
 *Wolfe, Mrs., Cape Girardeau
 *Wolf, S. J., St. Louis
 Woolsey, Ross A., St. Louis
 Yount, William E., Cape Girardeau
 Zahorsky, Theodore S., St. Louis
 Zimmermann, Carl A. W., Cape Girardeau

The following communications were read: Acknowledgement of flowers sent at the death of Dr. Harry Forgrave; a letter from the St. Louis Medical Society's Medico-Legal Committee thanking the Society for the donation of \$100; a letter from the State Medical Association calling attention to the Eightieth Annual Session to be held at Cape Girardeau; letters from the St. Louis Medical Society and the St. Louis County Medical Society memorializing the Executive Committee of the State Medical Association to urge the Board of Trustees of the American Medical Association to establish a Council on Medical Economics to carry on a permanent campaign of publicity and advertising through the most obvious media reaching the masses of public opinion to counteract the efforts being made in the Congress of the United States to enact a system of compulsory health insurance this year; notification from the Buncombe County (North Carolina) Medical Society of an institute on tuberculosis to be held in Ashville this summer; a letter from the Cole County Medical Society soliciting help and good will as a society in inviting the Missouri State Medical Association to hold its 1938 Annual Session in Jefferson City; a letter from the American Foundation Studies in Government discussing the report entitled: "American Medicine: Expert Testimony Out of Court"; a letter from the St. Louis Medical Society stating that suit will be filed shortly in the Missouri State Supreme Court testing the legality of the corporate practice of medicine, and a letter from the State Medical Association concerning a letter from Margaret Sanger, president of the National Committee on Federal Legislation for Birth Control, warning that physicians in Missouri cannot rely upon the decision of the United States Circuit Court of Appeals for the second District (the states of New York, Connecticut and Vermont) to protect them from the consequences of violating the Missouri or Federal laws.

The application for provisional membership of Drs. DeLong and Chiarottino were read, voted upon and passed unanimously.

An interesting six reel motion picture "Electro-Cardiography in Normal and Pathological Conditions" by Lundy, was shown.

O. EARL WHITSELL, M.D., Secretary.

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society met April 6 with eighty-five members and guests present.

Following a banquet the joint meeting of the Buchanan County Medical Society and the St. Joseph Clinical Society was called to order by Dr. Charles Greenberg in the Crystal Room of Hotel Robidoux.

Dr. Floyd H. Spencer, president of the Clinical Society, introduced the speakers, Dr. J. H. Ryan, St. Joseph; Dr. Lawrence T. Post, St. Louis, and Dr. M. Pinson Neal, Columbia.

Dr. Ryan, in his paper on "Eponyms" decried the use of men's names to describe a diseased condition or syndrome and urged that specific and descriptive terms be used instead.

Dr. Post presented an interesting review on the "Recent Advances in Ophthalmology."

Dr. Neal discussed "Pneumonias, Their Nature and Action." He gave an exhaustive discussion of the pathology and classification of pneumonia, also discussed therapy and prognosis.

Meeting of May 5

The meeting was called to order at the Missouri Methodist Hospital at 8 p. m. by the president, Dr. Charles Greenberg, with forty-five members present.

At the request of Dr. A. E. Burgher, chairman of the state medicine committee, a letter from the State Medical Association in regard to a suggested program for medical care for Resettlement Administration clients in Missouri was read. Dr. Burgher introduced Mr. Gillispie, director of Rehabilitation, and Miss Marsh, home supervisor for Buchanan County. They explained the program of Resettlement, especially that part which has to do with the payment for medical care of the families which come under this classification.

It was moved by Dr. J. T. Stamey and seconded by Dr. L. Paul Forgrave that the Resettlement Medical Program be referred to the executive committee and then referred back to the Society. The motion passed.

A motion made by Dr. W. T. Elam and seconded by Dr. Albert Muench that the Society go on record as opposed to anything relating to state medicine passed.

JOHNSON COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Johnson County Medical Society was held in the office of Dr. W. E. Johnson, Warrensburg, June 2, at 8 p. m.

The following resolution was introduced: "Resolved, That the Johnson County Medical Society go on record as favoring the construction of a county hospital as provided for by the statutes of the state; this hospital to be constructed from public funds so that it may be used for hospitalization of charity, semi-private and private patients." On motion the resolution was unanimously adopted.

On motion the president was instructed to appoint a committee of three to represent the Johnson County Medical Society in its efforts to promote the establishment of a county hospital. The duty of the committee would be to meet with committees of like character appointed from other organizations of Johnson County to form a workable organization to plan and arrange for the construction of such a hospital.

Dr. Kelly Rawlins, Holden, was elected to membership.

On motion the resolutions committee was instructed to draft resolution of condolence incident to the deaths

of Dr. James I. Anderson on February 28 and Dr. H. P. Haning on April 12.

Dr. E. R. Cooper, Warrensburg, presented a paper on "Early Diagnosis of Pulmonary Tuberculosis."

A special program was arranged in honor of Dr. L. J. Schofield, Warrensburg, on the completion of fifty years of practice. Dr. C. T. Ryland, Lexington; Dr. W. A. Braecklein, Higginsville, and Dr. W. E. Johnson, Warrensburg, expressed their appreciation of Dr. Schofield's long period of service in his labor for organized medicine. Each member present was eager to add his bit of eulogy to the verbal bouquet of love and admiration for one of their number who has always shown a disposition to advance the profession of medicine and add glory to its attainments for the benefit and edification of man.

Dr. Schofield responded to the many heartfelt tributes of affection in his natural manner of dignity and beauty of language so characteristic of the man of knowledge and culture.

Dr. W. E. Johnson presented Dr. Schofield with a memento of his respect and admiration which has grown during many years of personal contact and close association.

At the close of the meeting Dr. Johnson, with the aid of his office assistants, served a splendid lunch.

As is the usual custom, the Johnson and Lafayette county medical societies met together upon this occasion.

O. B. HALL, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met at 8:45 p. m., May 25.

Dr. F. W. Teiber, St. Louis, showed some interesting roentgen rays of a knee joint with extensive extostoses.

Dr. J. H. Armstrong, Kirkwood, reported a innteresting case of hemorrhagic destruction of the right testis.

Dr. C. R. Smith, Villa Grove, Illinois, reported four cases of sore mouth with geographic tongue and extensive sloughing.

Dr. D. M. Skilling, Webster Groves, of the program committee, introduced Dr. Omer E. Hagebusch, St. Louis, who read a paper on "Undulant Fever" which was discussed by Drs. R. A. Walther, Overland; R. B. Denny, Creve Coeur; W. A. Smith, Webster Groves, and Roland Stuebner, St. Louis.

Dr. Howard A. Rusk, St. Louis, read a paper on "Chronic Urticaria" and described treatment by potassium chloride substituted for sodium chloride. Patients are given a diet rich in meats and eggs, milk, butter, cream, cheese and green vegetables while citrus fruits, salt and alkalines are avoided. In addition the patients are given potassium chloride, from 60 to 90 grains, in enteric coated capsules. Under this diet several previously intractable cases were promptly cured. This interesting paper was discussed by Dr. Bruce Kenamore, co-author, Drs. Roland Stuebner, J. D. Hayward and Omer E. Hagebusch, St. Louis.

After some discussion of the amendment to raise the dues to \$15 the amendment was adopted.

Dr. John O'Connell, Overland, reminded the Society that it was time to think of the annual picnic. Dr. T. J. Kemp, St. Louis, of the entertainment committee, said he was arranging for the picnic.

JULIUS JENSEN, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

16th Annual Meeting

President, Mrs. Augusta Kech, Altoona, Pennsylvania.

President-Elect, Mrs. Charles C. Tomlinsen, Omaha, Nebr.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.

President-Elect, Mrs. Herbert L. Mantz, Kansas City

Report of the President, Cape Girardeau Session

We have come now to the time when we must render an accounting of our stewardship of the Auxiliary for the last year.

When we took over the duties of our office a year ago, our Auxiliary had finished a successful year under the able leadership of Mrs. M. Pinson Neal, Columbia. The stimulus of two national conventions in our state within the year had increased our membership by 216, making 988, the largest it had been up to that time. It continued to increase after our state convention until at the time of the meeting of the American Medical Association in Kansas City in May a membership of over a thousand was reported.

It would be natural to expect these figures to fall off once the national conventions were over, and the fact that the present membership of 938 paid up members is only fifty-two less than it was at the end of the previous year, or a decrease of only about 5.3 per cent, is most encouraging.

One new group, the Perry County Auxiliary, was organized on December 8, 1936, by the president and the corresponding secretary, bringing the number of our organized groups to twenty-two. Seventeen of these are 100 per cent paid up, thirteen have monthly meetings and nine have quarterly meetings. Fourteen of the groups conducted public relations meetings with qualified speakers on medical subjects, three having two meetings each, making a total of seventeen public relations meetings for the state.

Twelve groups and one member-at-large, Mrs. P. E. Coil, Mexico, sponsored our Essay Contest on the subject, "Your Health and How to Preserve It." A total of 530 essays were written, more than twice the number of the previous year, to which probably the easier subject and the availability of reference material were contributing factors. Jackson County reported the largest number of essays written, 150, with Cole County next with 115. In the senior group first prize was awarded to Jackson County, second prize to Saline County and honorable mention to Buchanan and Cass counties. In the junior group first prize was awarded to Boone County, second prizes to Miller County and honorable mention to Cass and Audrain counties.

In many cases the chairmen have reported the great difficulty, or the impossibility even, of introducing the essay contest in the schools. However, with the results obtained by our chairmen this year, with more than 50 per cent of our groups being successful in sponsoring it and more than 500 essays written, we cannot help but feel that it is a valuable educational project and one

which should be continued. We would recommend as early a selection of subject as possible and greater publicity for the contest throughout the state.

Our chairman of *Hygeia* reports 389 subscriptions for the state, of which 145 were secured by Buchanan County, always the leader in this project. Let us remind ourselves again of the great value of the authentic medical information contained in this magazine and that this is the one piece of work requested of us by the American Medical Association.

Four issues of the *Quarterly Bulletin*, financed this year for the first time by an allotment in the budget, have been published by our press and publicity chairman. Since the *Bulletin* is our most valuable means of keeping in touch with each other and of fostering interest in our state organization, and since often it has been found that it has not been distributed to the individual members of the groups, we would urge that, as soon as our treasury will permit, provision be made in our budget to cover the expense of direct mailing.

A uniform health education study program on "Mental Hygiene" was prepared by our program chairman and has been used by twelve of our organized units with much interest and appreciation. Sixteen groups have members who have participated in the health programs of other clubs and twelve groups have done work in cooperation with their local or state health departments, assisting in clinics for crippled children, preschool children, diphtheria immunization, tuberculin tests, skin and cancer. Many of our members assisted in the enrollment in the Women's Field Army for the control of cancer, of which Mrs. David S. Long, Harrisonville, was the state commander.

We are happy to report that due to the untiring and persistent efforts of our Corresponding Secretary, Mrs. Frank L. Davis, St. Louis, the third state year-book, after many disappointing but unavoidable delays, has been published and distributed to our members without cost. The project was financed entirely by advertisements solicited largely by Mrs. Davis herself, with cooperation from a few of our organized groups. Our gratitude and sincere appreciation are due the chairman and all those who contributed in any way toward making this project a success.

Our Archives have been properly filed and cared for, twelve groups sending year-books. Our treasury shows a nice balance. No legislative matters required the attention of our chairman of that department and no revisions have been suggested.

Your president with ten delegates and alternates represented our organization at the national convention in Kansas City, to which the members of our Jackson County Auxiliary played very gracious and efficient hostesses.

Articles have been written by the president for each issue of our *Quarterly Bulletin*, and for the January and February, 1937, numbers of THE JOURNAL of the Missouri Medical Association and for the March, 1937, number of the *National News Letter*.

Your president attended the meeting of the executive board of the Woman's Auxiliary to the American Medical Association in Chicago in November, 1936, and conducted our fall state board meeting at Columbia on September 24, 1936, with thirty members in attendance.

During the year your president has attempted, by personal visits to our organized groups, to foster a closer cooperation between these units and the state organization. Travelling over 3000 miles in the state, seventeen official visits and addresses were made in furtherance of this plan, on all but five of which she was accompanied by our corresponding secretary, Mrs. Frank L. Davis, who made the trips entirely at her own

expense and in the interests of our state year-book, and without whom many of the trips would not have been attempted. Our sincere thanks are due Mrs. Davis for her unfailing loyalty, interest and cooperation throughout the year.

It has been the aim of your president, mindful of the interests of our organization, to conduct the affairs of our auxiliary to the best of her ability and always with harmony. She wishes to express her sincere appreciation to all the officers, chairmen and county presidents, who assisted her to achieve this end, and in particular to the president and members of the Cape Girardeau Auxiliary for their cooperation in arrangements for our state meeting.

MRS. WALTER KIRCHNER, St. Louis.

BOOK REVIEWS

PHYSICAL DIAGNOSIS. By Ralph H. Major, M.D., Professor of Medicine in the University of Kansas. With 427 illustrations. Philadelphia and London: W. B. Saunders Company. 1937. Price \$5.00.

Ralph Major's "Physical Diagnosis" is one of the best books on this subject that has come to the reviewer's attention. It is well written, concise, profusely illustrated by pictures which help to make the text clear and always viewed in the light of the writer's mature clinical judgment. It is especially gratifying to the reviewer to have the author stress the history of physical diagnosis and to pay tribute to the old masters who did so much to put the art on a firm foundation. There is a short biographical sketch Auenbrugger, the discoverer of percussion, and Laennec with a picture of his original stethoscope. The works and opinions of Skoda and Friedrich Mueller are freely quoted, as are those of our own Austin Flint and William Osler. The book can be warmly recommended to practitioners and students of medicine. L. H. H.

MATERNITY AND POST-OPERATIVE EXERCISES, In Diagram and Words. By Margaret Morris, C.S.M.M.G., In Collaboration with M. Randell, S.R.N., S.C.M., T.M.M.G. (Twenty-one exercises.) Introduction to Maternity Exercises by Professor R. W. Johnstone, C.B.E., M.D., F.R.C.S.E., F.C.O.G. Introduction to Post-Operative Exercises by Professor John Fraser, M.C., M.D., F.R.C.S.E. New York: Oxford University Press. 1936. Price \$2.00.

In her preface the author of this handbook warns that it is "intended primarily for masseuses, midwives and nurses who have taken the Maternity and Post-Operative Exercise Diploma of the International Institute of Margaret Morris Movement." Obviously a very highly specialized work intended for a very specially trained reader-group, the book will be of little more than passing interest to the medical practitioner unless he make up his mind to acquaint himself thoroughly and completely with the background of the author and her purposes and methods.

Having read through the 152 pages of text and illustrative sketches it is difficult not to feel that the author has allowed her enthusiasm for the admittedly beneficial effects of planned and directed exercise of the various muscle groups to carry her to an extreme which, in at least one instance, falls little short of being fantastic. When, for example, she presents an exercise intended for use during the second stage of labor and directs that the exercise be done, three beats

in a bar, to the rhythm of Schubert's Waltz Opus 66, No. 4, played on a victrola (without which presumably no delivery room is complete) it becomes difficult to suppress a polite but slightly tolerant smile. When she further directs that the breathing of the patient during the performance of the exercise shall be "synchronized and easy" one wonders whether the author has ever witnessed the second stage of labor of any woman other than an Amazon or a Stoic.

In those portions of the work devoted to postoperative and corrective exercises there is evidenced a very considerable understanding of the physiology and anatomy of body movement and in these divisions of the subject matter the suggestions as to method and procedure are excellent. As a whole, however, the book presupposes a much greater familiarity with the particular system of the author than is possessed by the average reader.

J. A. H.

AN INDEX OF DIFFERENTIAL DIAGNOSIS OF MAIN SYMPTOMS. By various writers. Edited by Herbert French, C.V.O., C.B.E., M.A., M.D. Oxon., F.R.C.P. Lond., Consulting Physician to Guy's Hospital; late Physician to H. M. Household. Fifth edition. With 742 illustrations, of which 196 are coloured. Baltimore: William Wood and Company. 1936.

This volume, as its name implies, is an index of symptoms alphabetically arranged with a complete cross-index of subjects arranged under disease headings. Both are an essential part of the index. The symptoms considered cover the entire domain of medicine, surgery, gynecology, ophthalmology, dermatology and neurology. No attempt is made to cover treatment, pathology or prognosis, except as these subjects may arise incidentally in the discussion of symptoms.

The alphabetically arranged articles discussing each symptom form the body of the book, while the general index gathers together the references to symptoms as they may occur under various diseases. Emphasis is placed on the differential value of symptoms that attract attention in a given case.

The volume is profusely illustrated in part by colored plates. The articles are contributed by nineteen leading men in the respective specialties in England and are authoritative. The work is unique in its conception and arrangement and has proved in previous editions a valuable reference handbook which the present edition still further improves.

W. B.

MODERN UROLOGY. In original contributions by American authors. Edited by Hugh Cabot, M.D., LL.D., C.M.G., F.A.C.S., Professor of Surgery, The Mayo Foundation, Graduate School of the University of Minnesota, etc. Volumes I and II. Illustrated. Philadelphia: Lea & Febiger. 1936. Price \$20.00.

The past twelve years have brought many changes in the older concepts of urology and with the introduction of numerous new procedures, some of which have fairly revolutionized certain phases of this specialty, this third edition has undergone marked changes in text. A section has been allotted to transurethral surgery of the prostate, a special chapter given to surgery of the seminal vesicles and another chapter added on radiation therapy of tumors of the genitourinary tract.

The contributors on the whole have been well chosen, the system itself being a commendable one since it gives a wide urologic opinion, some members of the profession being better qualified than others to write on particular phases of urology. There is sufficient space

given to embryology, anatomy and physiology to satisfy the average student, but the work is more to the practical side. A lengthy bibliography is appended to each chapter. The various surgical procedures are well outlined and for the most part excellently illustrated. Certain sections show a lack of accurate proofreading but these errors do not detract materially. The work is well balanced, is an excellent text and provides one of the best references on urology in print.

J. F. P.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES. By Paul Titus, M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to the Homestead Hospital, Homestead, Pa., etc. With 314 illustrations including four color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$8.50.

This is a complete work of some 850 pages devoted entirely to the management of the difficult problems of obstetrics. The author stresses the need for better obstetric care, citing the 15,000 annual deaths from childbirth and its complications as evidence for this need. Dr. Titus believes it to be unfortunate that many physicians still regard childbirth as a natural physiological process, stating that "entirely normal, uncomplicated pregnancies and labors actually are in the minority."

The first two sections are devoted to the problems of sterility and difficulties in the diagnosis of pregnancy. The third section deals with the complications of pregnancy. Constipation, considered as a minor complication, is treated in a manner contrary to the usual method of treatment in that bran is interdicted because it "clogs the intestine." The author's conservatism is seen in his treatment of abortion and premature labor.

Section four is devoted to a consideration of the complications of labor. As many of us have discovered in our attempts to limit the birth weight of the fetus, Dr. Titus has found that the maternal diet seems to have little influence in restricting the size of the baby. The use of quinine has been discarded in the induction of labor.

Section five deals with obstetric operations, and section six with the complications of the puerperium. The illustrations in this part of the book are unusually good, particularly those showing the Scanzoni maneuver, and the use of forceps in low cesarean section.

The "Newborn Infant" heads section seven. The concluding section, eight, deals with obstetrical preparation, care of patients before, during and after labor, method of anesthesia, etc.

R. B.

THE DISEASES OF INFANTS AND CHILDREN. By J. P. Crozer Griffith, M.D., Ph.D., Emeritus Professor of Pediatrics in the University of Pennsylvania; Consulting Physician to the Children's Hospital for Children, etc., and A. Graeme Mitchell, M.D., B. K. Rachford, Professor of Pediatrics, College of Medicine, University of Cincinnati; Director of the Children's Hospital Research Foundation, etc. Second edition revised and reset. Philadelphia: W. B. Saunders Company. 1937. Price \$10.00.

We are glad to welcome the second edition of this well known book which stands second to none in value to the pediatrician and general practitioner. So much knowledge compressed in 1150 pages! Preventive measures are emphasized and artificial feeding has been placed on a simpler basis. We regret that not enough emphasis has been placed on the necessity of

prescribing relatively more protein to the young infant than to the older infant. During the first month of life the amount of milk should be two ounces to the pound of weight. We believe, of course, that milk must be processed in some way otherwise a milk injury develops in many cases. Evidently the authors are not in favor of using evaporated milk in infant feeding as very little space is given to this product. The homogenization of cow's milk is merely mentioned.

We fail to find the symptoms and causes of "milk injury," in the sense of Czerny and Keller (Balance Disturbance—Finkelstein), described. Do the author's believe that this disturbance has become very rare? Thermic fever (heatstroke) is not listed in the index, but the diseases first described in recent literature are given a short description, such as Von Gierke's disease, Letterer and Sieve's disease, etc. However, in the chapter on hip disease, no mention is made of simple coxitis, or transient synovitis of the hip, a disorder that is very common in children.

We believe that the space given to the references might be reduced and devoted to a more lengthy discussion of some topics.

J. Z.

HANDBOOK OF ORTHOPAEDIC SURGERY. By Alfred Rives Shands, Jr., B.A., M.D., Associate Professor of Surgery in Charge of Orthopaedic Surgery, Duke University School of Medicine, and Chief of the Orthopaedic Service, Duke Hospital, Durham, North Carolina, etc., In Collaboration With Richard Beverly Raney, B.A., M.D., Instructor in Orthopaedic Surgery, Duke University School of Medicine. With 169 illustrations. St. Louis: The C. V. Mosby Company. 1937.

Following a well organized outline, the author has presented the difficult and rapidly changing subject of orthopedics in a manner that is easily read and understood. The subject matter is divided into the following groups: (1) Congenital variations and anomalies; (2) Affections of joints with separate chapters on tuberculosis; (3) Affections of bone; (4) Affections of muscles, tendons, ligaments and bursae; (5) Disturbances of the neuromuscular system, and (6) Static disabilities and deformities.

Each group is well presented and there is adequate discussion of modern methods of treatment. Fresh fractures are discussed but healed fracture deformities are presented.

The book is strongly recommended as a textbook for student and intern reference, for the general practitioner and as a reference book for those in any specialty. It should be in every hospital library. The detail is probably not sufficient for the orthopedic surgeon but it will be a worthy addition to his library especially because of the extensive bibliography.

O. P. H., Jr.

THE CLINICAL USE OF DIGITALIS. By Drew Luten, A.B., M.D., Associate Professor of Clinical Medicine in the Washington University School of Medicine and Physician to Barnes Hospital, St. Louis. "What helps the individual patient most is to be taken as the best treatment for him, whether it be possible or not to analyze its action in every detail." —Wenckebach. Springfield, Illinois: Charles C. Thomas. 1936. Price \$7.50.

A careful study and analysis is made of the physiological effects of digitalis on the heart muscle and on the physiological divisions of the organ as a whole. As corollaries from these observations the physiological results on the pathological states of the heart are de-

veloped. General systemic results are also discussed.

The changing views on the indications for the drug and the history of the changes in dosage are presented. The use in the arrhythmias, in angina pectoris, coronary occlusion, thyroid disease and in other special situations is considered.

Out of these considerations grow the important conclusions as to dosage and methods of administration, as well as the dangers and the contraindications of the drug.

The reader will find a certain amount of controversial material in this study. This adds to the already great interest of the presentation, and is enhanced by an extensive bibliography.

W. B.

SYNOPSIS OF ANO-RECTAL DISEASES. By Louis J. Hirschman, M.D., F.A.C.S., Proctologist, Harper, Charles Godwin Jennings, and Woman's Hospitals; Consulting Proctologist, Detroit City Receiving, Evangelical Deaconess, Wayne County Hospitals, etc., Detroit. With 174 text illustrations and six color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$3.50.

In the preface to his new book, "Synopsis of Ano-Rectal Diseases," Dr. Hirschman intimates that it is intended primarily for the general practitioner. I wish to congratulate him upon so worthy and timely a purpose. If proctology is to be taken out of the hands of the charlatan, if the public is to be offered honest, adequate and timely treatment for diseases of the colon and rectum, if surgeons are to be given an opportunity to operate upon cancers in that region before it is too late, if these changes are to be brought about it must be done by awakening the attention and interest of the general practitioner in these matters, and this book of Dr. Louis J. Hirschman is well calculated to do so.

Its simplicity, its brevity, its lack of prejudice is appealing. To my mind Chapters II and III are the high lights of the book, the former dealing with symptoms and the latter with examinations. No group of symptoms are so disregarded and so frequently misinterpreted as those that have to do with the colon and rectum, and physicians often neglect to make a rectal examination even in the face of symptoms. Chapter II makes clear a physician's duty, and Chapter III, which concerns examination, outlines in the simplest way the details of the procedure.

In order to compete with the unethical physician, we must do more of what is known as ambulant proctology. Personally, I have never been willing to sacrifice comfort for economy and still feel that a patient, even after a minor operation, is vastly more comfortable in a hospital than at home. Although the author is writing especially for office work it is evident that he too feels the occasional need of a hospital as well as for a general anesthetic. Much time is given to the subject of the injection method of treating hemorrhoids. In the end, however, he characterizes this method as the "best substitute for the radical removal," and contended that while it has its usefulness, is amulant and is much less expensive it is a prolonged and tedious method with a large percentage of recurrence. In this I quite agree.

I was glad, too, that he reaffirmed his faith in the simple excision of the anal fissure as against the more complicated plastic procedure recommended by some surgeons.

But it would be monotonous to agree with him throughout so I take issue with him in some parts of his chapter on pruritus ani. I believe Ball's and Krouse's operations should have been omitted; or, if mentioned, only with condemnation. What they at-

tempted to do can be done by injection just as effectively and with far less danger of complication.

His chapter on constipation is worthy of a gastroenterologist. But you must read the book to fully appreciate it and, having finished it, you will feel that a man of great experience has opened his mind and heart to you, and that his purpose was not to exploit himself, but to teach you.

R. D. A.

LIGHT THERAPY. By Frank Hammond Krusen, M.D., Associate Professor of Physical Medicine, The Mayo Foundation, University of Minnesota; Head of the Section on Physical Therapy, The Mayo Clinic. Forty-two illustrations. Second edition revised and enlarged. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers. 1937. Price \$3.50.

This is the second edition of a volume which has found much favor with the medical profession since its first appearance four years ago. The author has added many new features and has made it a comprehensive and authoritative treatise on light therapy.

The volume begins with an interesting chapter on the history of light therapy which, no doubt, will be welcomed by many who are interested in this field of work. The chapter on physics is written in a clear concise manner not too technical and yet comprehensive. The chapter on physiology is especially recommended to newcomers in this field, who will find in the thirty odd pages much valuable information gleaned from many sources. Special mention should be made of the author's effort to bring before the general practitioner the indications of light therapy. He lists many diseases treated by different workers whose opinion he indicates but does not necessarily subscribe to. He clearly senses the harm which has been done on the part of doctors and the laymen by the promiscuous use of ultra violet light which he clearly manifests by his statement "anyone who reviews the lists which head the following sections must be convinced of the rash manner in which ultra violet light has been recommended for almost countless ills."

The last chapter deals specifically with dangers and limitations of light therapy which is so important that one might wish it were the first rather than the last chapter. One would also like to commend the author on his comprehensive list of references which number two hundred and thirty.

The book is recommended especially to the general practitioner who is in need of fundamental knowledge in the field of light therapy.

F. H. E.

DIABETES. A Modern Manual. By Anthony M. Sindoni, Jr., M.D., Chief of the Diseases of Metabolism at the St. Agnes Hospital, Philadelphia, etc. Introduction by Morris Fishbein, M.D., Editor Journal of the American Medical Association. With a Foreword by George Morris Piersol, B.S., M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Abington, Pa. New York: McGraw-Hill Book Company, Inc. 1937. Price \$2.00.

A volume that fails to come up to the standard set by earlier publications of the Whittlesey House Health series. It is questionable whether or not the author of a book intended for the general public should advocate a method of treatment only recently reported to the medical profession and not yet accepted or endorsed by them.

B. Y. G.

BRIGHT'S DISEASE AND ARTERIAL HYPERTENSION. By Willard J. Stone, B.Sc., M.D., F.A.C.P., Clinical Professor of Medicine, School of Medicine, University of Southern California, Los Angeles; Attending Physician to the Pasadena Hospital, Pasadena, California. Illustrated. Philadelphia and London: W. B. Saunders Company. 1936. Price \$5.00.

A concise and readable treatise on a very important subject. The author is to be commended on his autopsy abstracts and their classification and should be encouraged to continue a clinical pathological approach to the subject. The number of patients below the fourth decade of life in all groups of nephritis suggests that all is not written etiologically and that here is a real problem for preventive medicine.

W. C. B.

PRINCIPLES OF CHEMISTRY. An Introduction Textbook of Inorganic, Organic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry. With Laboratory Experiments. By Joseph H. Roe, Ph.D. Fourth edition. St. Louis: The C. V. Mosby Company. 1936. Price \$2.75.

This book has been written to meet the requirements in chemistry for nurses recently recommended by the National League of Nursing Education. Additional material has been added in keeping with the progress in educational standards. The author has endeavored at all times to select material well adapted to the needs of the student nurse and with this objective in mind has placed special emphasis upon the physiological and clinical phases of chemistry.

Inasmuch as the discussions involving physiological chemistry have received such a full treatment, it may be used in elementary courses in schools of home economics and to other courses involving applied chemistry. A comprehensive set of laboratory experiments designed to supplement the theoretical work presented and to give the student training in laboratory technic, is included in the latter part of the book.

I have used this book for a textbook in my course for nurses for the past seven years and I find it to be very satisfactory.

S. A. T.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession Throughout the World. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Maryland. Volume IV. Forty-sixth Series. Philadelphia: J. B. Lippincott Co. 1936.

Missourians will be interested in two articles in this number from their own state: "The Treatment of Emphysema" by H. L. Alexander of St. Louis, and "Clinic on Cardio-Vascular Disease," by Ralph Major of the University of Kansas.

There is a timely article on "Gastroscoy" by Jacob Schloss of Boston. And there is also a valuable article on "Xerostomia" by Richard Beebe of Albany, New York, an often unrecognized condition. So, also, Youman's article on "Nutritional Edema" should be read by every general practitioner, in order not to make the mistake of thinking that all edema is due to cardiorrenal disease. Levine of Boston writes a very entertaining article on "The Bedside Recognition and Treatment of Cardiac Irregularities." The whole subject of "Acne" is reviewed by Isaac R. Pels of Johns Hopkins.

Altogether the volume makes a good refresher for the man in general practice.

G. H. H.

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VAGINITIS AND CERVICITIS

MELVIN A. ROBLEE, M.D.

ST. LOUIS

I believe it is necessary to consider vaginitis and cervicitis as one definite syndrome and clinical entity. This opinion is based on seven years' experience in the cervicitis clinic of the Washington University Medical School Dispensary where it has been possible, through the cooperation of the social service workers, to follow most cases for years after surgical diathermy has been used to remove the gland bearing area of the diseased cervix. Unless the entire diseased gland bearing area was removed the cervicitis would return in most cases in from six months to two years. This observation forced the realization that the cervix must be treated radically or left alone as some of the mild untreated cervixes improve. The cause of the improvement was not clearly understood until studies of the hydrogen ion concentration of the vagina were undertaken. These findings in the degree of vaginal acidity have explained not only the physiology of vaginal acidity, which is normally P_H 4.0 to 4.2, but have opened up a new treatment of cervicitis, namely, vaginal prophylaxis. This maintains a vaginal fermentation, acid in reaction, which causes cervical erosions to heal and stops growth of pathogenic alkaline forming bacteria in the vagina.

The cervical canal is normally alkaline, P_H 7.5. The columnar epithelium lining the endocervical canal should have this alkaline environment, but the squamous epithelium that covers the vaginal portion of the cervix should have an acid environment of P_H 4.0 to 4.2. How does nature make the vagina so acid even in the presence of the alkaline endocervical secretion?

The new-born female has an acid vagina for the first few weeks of life because of the estrin which circulated from the mother through the placenta into the child. When this estrin is de-

pleted the vagina becomes alkaline and remains so until puberty when the girl's own ovaries produce estrin and the vagina becomes acid again. The normal vagina remains acid until the menopause at which time the vagina may become alkaline, depending on the depletion of estrin. We know from animal experimentation that the estrogenic products are standardized by the amount of vaginal desquamation the estrin produces. I believe that a similar desquamation takes place in the human vagina and is responsible for the depositing of acid fermentable material within the vagina to maintain vaginal acidity to a normal P_H of 4.0 to 4.2.

The vaginal epithelium produced by estrin action is composed of large rectangular cells which can be seen in abundance in all normally acid vaginas. The vaginal walls are covered with these cells and they are described as containing an abundance of glycogen-like substance. However, I have not been able to show that a gram of these well developed cells contain any more acid fermentable substance than a gram of flat vaginal epithelium. The point, as I see it, is that the fully developed rectangular cells that desquamate make available an acid in the vagina, probably by the breaking down of these cells by enzyme and bacterial fermentation. I have not been able to show lactic acid in the vagina in sufficient quantity to account for the normal P_H . This may be because lactic acid breaks down so quickly into other organic acids. Butyric, propionic and acetic acids play a bigger part. Observers who report that the vaginal epithelium stores glycogen and that hydrolized dextrin placed in the vagina will be absorbed and stored as such in the vaginal epithelium would place the vagina on a par with the liver as being the organ in the body to store glycogen. Rather, it would seem to me that it is the normal environment of the vagina, produced by placing any sugar or acid fermentable substance within the vagina, which would establish a normal vaginal flora, stop infection and permit the fully developed cell to grow and deposit acid fermentable material within the vagina.

On the above theory I have been using beta

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Read at the 80th Annual Meeting of the Missouri State Medical Association, Cape Girardeau, May 10-12, 1937.

lactose which is a powdered, anhydrous, specially prepared sugar which takes up moisture five times more readily than U. S. P. lactose, hence acts as a drying agent. Mycotic organisms will not readily ferment beta lactose as they would dextrin, but all bacteria will readily ferment it and the resulting acid reaction will be a P_H of 4.5. Pathogenic alkaline forming organisms cannot live in this environment so they ferment the beta lactose, when added to an alkaline vagina, causing their destruction. Döderleini bacilli thrive in this environment and normal vaginal epithelial cells can grow to full development unhampered by infection and can desquamate if there is not too great a deficiency of circulating estrin.

Beta lactose is added to the vagina in massive amounts. At office visits the entire vagina is packed with it by means of a wooden tongue depressor and large bivalve speculum. The patient is then given a prescription for large veterinary gelatin capsules, No. 11 or No. 12 size which hold about 11 or 12 cc. by volume, filled with beta lactose and, if the recorded vaginal P_H should call for it, additional acid producing elements to overcome the alkaline combining power of the vagina. The patient inserts these capsules into the vagina as directed. Acids alone should not be added to the vagina for the same reason that antiseptics, although they may kill and inhibit the growth of pathogenic alkaline organisms, also inhibit the growth of the Döderleini bacilli and keep the vagina from taking over the normal acid forming operation. Too strong chemicals can produce a vaginitis and interfere with the growth of the much desired adult vaginal epithelial cell from which the normal vaginal acidity must come when treatment is stopped. Thus the replacement therapy in the treatment of vaginitis must prepare the vagina to take over its full normal function while the treatment is still being continued. Failure to do this is responsible for seeming cures which turn out to be failures.

The vagina cannot maintain its normal degree of acidity if the cervical secretion is in too great abundance for, with an increased endocervical downpouring of material with a P_H of 7.5, the alkaline combining power of the vagina is sufficient to take up all the vaginal acidity and, with the vagina returning to a P_H of from 5.5 to 6.5, the Trichomonas and pathogenic organisms of an alkaline environment can again start to grow. The erosion will return to the cervix and the vicious circle of the vaginitis cervicitis syndrome will again be set up. Squamous epithelium of the vagina and vaginal portion of the cervix are damaged if the P_H of from 4.0 to 4.5 as limits is not maintained constantly. Thus we see the necessity of recording vaginal P_H readings of the lower, middle and upper vaginal

walls and from the vaginal portion of the cervix and the endocervical canal if we expect to discharge our patients as cured of leukorrhea and not have the leukorrhea return. For return it will if the exact P_H balance between the cervix and vagina has not been permanently adjusted, for if the vagina cannot make its own acid and maintain this acid to about a P_H 4.0 the vagina cannot resist infection.

Acidimetry and alkalimetry as a diagnostic aid in gynecology is now a simple procedure involving little or no time or expense. The Squibb company has placed a universal indicator on the market under the trade name of "Nitrazine." This records, without any apparatus other than a color chart, P_H readings from the acid range of 4.5 to 7.5 on the alkaline side. It is misleading to use the terms acid and alkaline in regard to the vaginal reaction and a descriptive terminology can be introduced if the P_H readings are given instead. Before nitrazine was placed on the market I used two dyes, methyl red and bromcresol green, to give the necessary information. As these dyes could not be read as to color change, if applied directly to the vaginal wall, they were applied to a thin layer of beta lactose which was first applied to the vaginal walls with a tongue depressor. The anhydrous property of this white neutral substance caused it to absorb the vaginal moisture and, when the dyes were applied by cotton applicators as spots to the white surface, the vaginal P_H at that area was recorded by color change. With methyl red the spot would be red at P_H 4.4 and yellow at P_H 6.2, and with the bromcresol green the spot would be yellow at 4.0 and blue at a P_H of 5.6. The technic of determining the vaginal P_H is to remove from the vagina, without contamination, vaginal material from the area to be tested and place it on a nitrazine paper and compare it with the color chart. The nitrazine papers are not very stable, especially in St. Louis' sulphur air, and on exposure will slowly turn to a P_H of 4.5. For this reason the original package should be divided and placed in sterile test tubes, corked tightly, and used from only one tube at a time. In placing the vaginal speculum in the vagina care must be taken not to carry into the vagina secretion of the Bartholin gland which has a P_H of 7.5. The introitus is wiped clean and the speculum is placed at once in the antero-posterior position instead of being turned as it enters the vagina as turning might carry in the Bartholin gland secretion. No lubrication can be used on the speculum that would in any way change or buffer the vaginal reaction. Glycerin can be used but it is usually not necessary. It is important to take the P_H reading before the bimanual examination is made as the manipulation will spread the secretions and make the localized P_H readings on the vaginal walls of

little or no value and the P_H of the mixed vaginal, cervical and Bartholin secretions is of no diagnostic value.

Bear in mind that the vaginal walls should be quite acid, with a P_H of 4.0. This P_H means there is normal vaginal desquamation, normal vaginal flora and a normal amount of cervical secretion which is of a P_H 7.5. When an untreated patient with such a reading is found, she will have a normal endocrine balance as to estrin, no vaginitis, no acute or subacute cervicitis, a normal vaginal flora with the acid forming Döderleini bacilli present and no other growing organisms and no overproduction of cervical secretion. That is a lot of information to obtain about any patient simply and quickly.

EXCEPTIONS TO THE NORMAL: ACID VAGINAS P_H 4.0 WITH LESIONS PRESENT

If the vagina is acid with accompanying itching and leukorrhea and clinical evidence of fungus growth (mycosis infection), verification can be made by staining the smear with carbolfuchsin which will demonstrate the fungi if present. Treatment is resorcin 3 per cent in the beta lactose capsules to be inserted by the patient, one capsule every day or every third day as tolerated. The resorcin will cause some irritation while being used, but I have found it to be the most effective treatment. From two to three weeks of this therapy is needed in bad cases and the results seem to be lasting and the irritation stops after the resorcin-beta lactose capsules are discontinued. No douches are used other than plain water for frequent cleansing.

There are patients with leukorrhea without any itching or evidence of mycotic infection who have a vaginal P_H of 4.0; such secretion will have no organisms other than the Döderleini bacilli and the leukorrhea is caused by too much vaginal desquamation. In such a young woman look for a cause of hyperestrin formation such as estrogenic ovarian tumors or she may be a hypersexed mental case. Metabolic studies are indicated or, if an ovarian tumor is found, its removal will correct the leukorrhea.

In cases of cervical stenosis the vagina has a P_H of 4.0 and the stenotic canal of the cervix will be from 4.0 to 5.0 as the amount of normal cervical secretion is cut down, permitting the vaginal secretion to back up into the canal of the cervix.

LESIONS OF THE CERVIX AND VAGINA WITH 2 PLUS AND 4 PLUS READINGS

P_H 5.0, 5.5 or 6.0 might be called the 2 plus range of the vaginitis cervicitis syndrome, while vaginal P_H readings of 6.0, 6.5, 7.0 and 7.5, the latter the same as the normal cervix, would be in the 4 plus range of severe, acute, pathogenic infection. The gonococcus, with or without

mixed infection, would be found in this 4 plus range and the cervix would be in too acute a condition for surgical treatment as these virulent organisms could spread through traumatized tissue to form a pelvic peritonitis.

These are the cases for the beta lactose plus additional acid, boric acid 20 per cent, and, if the gonococcus is present and for so long a time as it is, pyridium may be added, 1 grain to each capsule. When the vagina is packed with beta lactose 80 per cent and boric acid 20 per cent so as to at once overcome the alkaline combining power of a plus 4 vagina, the pathogenic cocci, streptococci and staphylococci and alkaline bacilli ferment the beta lactose and produce an acid environment from the sugar breakdown. These pathogenic organisms cannot live in the environment they create when the beta lactose is always present in abundance for fermentation. As these organisms kill themselves, the rate of fermentation is lessened and the beta lactose dissolves more slowly and the patient notices that the thin watery discharge, for which she must wear a pad, has almost stopped. The cervix will start to heal if the squamous epithelium is again in an acid environment of P_H 4.5.

Cases without chronic cervicitis will clear up on this therapy and, as a test, the beta lactose is used without the addition of boric acid since the lower limit of acid breakdown from the beta lactose is a P_H 4.5; but if the cervix is chronically infected and the gland bearing area is hypertrophied, the P_H 7.5 secretion will be in abundance and vaginal P_H readings will fall in the plus 2 group. It is then necessary to remove the hypertrophied gland bearing area of the cervix, the erosion now being healed, or the syndrome of vaginitis will return. This is done by surgical diathermy, coagulation, conization or the Sturmdorf operation as the case may be best handled. If surgical diathermy is used, either coagulation or conization, beta lactose is added at the time and later by the patient so the slough will separate in an acid environment of non-pathogenic organisms rather than the putrefactive alkaline variety. Nothing has been said of the trichomonas vaginal infections. These can live in the plus 2 range along with the milder infections but cannot live in an environment of from P_H 4.0 to 4.5. Hence the outlined therapy takes care of these offenders without any difficulty.

When the case is properly diagnosed, treated and followed and not discharged until the untreated vaginal walls remain at a P_H 4.0 with the endocervical canal at P_H 7.5 and in good structural condition, the patient will remain relieved of her infection and no leukorrhea will return.

I prescribe acid douches of white vinegar which is readily obtained and is U. S. P. acetic

acid 5 per cent, three tablespoons to the quart of water, once a day during each day of the menstrual flow. This removes the alkaline blood, retards the bacterial growth and helps keep the squamous cervical epithelium in an acid environment. Douching at any other time is discouraged or prohibited in severe cases as the beta lactose should not be washed out. It is an anhydrous powder and will take up moisture and if diluted by douching it cannot adhere to the vaginal walls and promote the growth of Döderleini bacilli which keep up the normal vaginal acidity. The two most commonly used douches, baking soda and lysol, are both alkaline of from P_H 8.5 to 9.0 and must be condemned in no mild terms.

For conization of the cervix I use a set of three especially designed wire electrodes made to remove a variable cone both as to size and shape. The third electrode of my series per-

mits a backward undermining cut of the already coned cervix without further burning in the canal.

For coagulating the cervix a small curved knife blade is used as if a classical Sturmdorf operation were being performed, but the tissue is not removed as in the case of the conized cervix or Sturmdorf operation but is allowed to separate in the form of a slough.

All of these methods, properly used, to remove the diseased gland bearing area of the cervix will give good lasting results.

CONCLUSIONS

In the management of cervicitis vaginitis syndrome, use:

1. Replacement therapy for the vaginitis in order to establish a normal physiology rather than the employment of various pharmaceuticals.

Table 1. Analysis of 250 Cases of Treated Leukorrhœa

Clinical Findings	P _H Vaginal	P _H Cervical	Medical Therapy			
			No. 12 Vaginal Capsules ¼ Oz. Filled With:			
			Beta Lactose	Beta Lactose 80% Boric Acid 20%	Beta Lactose 80% Boric Acid 20% Pyridium 1 Gr. Pow.	Beta Lactose 97% Resorcin Pwd. 3%
Vaginal wall, Normal. Döderleini Bacilli Estrin sufficiency Cervix Normal.	4.0 to 4.5	7.5				
Vaginitis Mycosis Fungi	4.0	6.5				R
Vaginitis Cervicitis ¹ Syndrome Type Flora. (Trichomonads, Mixed Cocci and Bacilli)	5.5 to 6.5	7.5		R		
Vaginitis Cervicitis ² Syndrome Type Flora. (Gonococci, Strepto Staph and Bacilli)	6.5 to 7.5	7.5			R	
Vulvo Vaginitis Children Non Gonorrheal	6.5 to 7.5			R small capsule		
Vulvo Vaginitis Children Gonorrheal	7.5				R small capsule	
Vaginal Flora, Normal Estrin Deficiency Cervix, Normal	5.5	7.5	R or glandular therapy. Estrin			
Vaginitis, Senile	6.0 to 7.5	7.5		R and glandular therapy		
Leukorrhœa ³ Ovarian Tumor Estrogenic Type	3.5 to 4.0	7.0				
Cervical Stenosis ⁴	3.5 to 4.0	6.0				

Douches: (1) Plain water, warm or hot; (2) acetic acid 5 per cent (white vinegar), 3 tablespoons to 1 quart of water.
1. Surgical Therapy. Removal of the gland bearing area of the cervix necessary later if vaginal P_H 4.0 cannot be maintained when the cervical erosion is healed.
2. Removal of the gland bearing area of the cervix necessary later to remove the diseased gland bearing area when infection is over.
3. Laparotomy for ovarian tumor.
4. Dilatation of cervix.

2. Removal therapy for cervicitis by which the diseased tissue of the cervix is eliminated.

Beaumont Building.

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OCULAR HYGIENE: FROM PRE-NATAL LIFE TO OLD AGE

W. BYRON BLACK, M.D.

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Ocular hygiene is of interest not only to the medical profession but to the entire population of any community.

A complete résumé of this subject could include a great deal on any one of the ramifications of the various phases of this subject. I will limit my writing, however, to a few of the salient facts which arise in the every day practice of the ophthalmologist, discussed in terms of the general practitioner.

The history of ophthalmology extends back from the present to many years B. C. For generations physicians have studied diseases of the eyes and written volumes on them. We know that many of these diseases can be prevented or modified by a little care and forethought. The complicated function of vision has many factors that must be analyzed to insure the minimum of inefficiency and discomfort and to yield a maximum of use and comfort.

In utero there are certain defects which are inherited and appear in a family generation after generation as color-blindness, congenital cataracts, amaurosis, familial idiocy, retinitis pigmentosa, myopia from a hereditary weakness of the sclera, hereditary microphthalmia that predisposes to chronic glaucoma, and syphilis which in its active stage is transmitted to the offspring. Fortunately active treatment during pregnancy gives the child protection from syphilis.

During birth the conjunctiva and its sac is often contaminated by the vaginal secretions of the mother. Often there is contamination with a virulent type germ causing ophthalmia neonatorum and destruction of the cornea with a resultant blindness.

Credé discovered that a 2 per cent silver nitrate solution instilled into the eyes of the newborn offered almost complete protection. Two per cent was found to be too strong so for the

sake of uniformity and convenience health officials furnish ampules of 1 per cent.

The diseases of childhood, by lowering of general resistance or their production of toxins, are commonly accompanied by conjunctivitis and keratitis. The child so afflicted should not be kept in a dark closed room with bandaged eyes. Cleanliness and irrigation with a bland solution are indicated if corneal complications occur. Specialized aid should be obtained, the diet regulated and vitamin deficiency corrected. The infant is profoundly influenced by sunlight and should be kept in a well lighted nursery with its eyes protected from direct exposure of the light rays.

When the child is promoted from kindergarten into school a careful eye examination should be made by a competent ophthalmologist. This is also urged during the pre-school period. The Snellen tests as conducted by the teachers and nurses have only a relative value because children may have a normal vision with a high refractive error and perhaps some serious disease of the eyes.

The first examination should be conducted by an ophthalmologist under a cycloplegic. A complete record should be kept on the child through his school life as an indication of the amount of work to be allowed, the dangers to be avoided and the frequency with which examinations should be made. Even though the child has perfectly normal eyes he is still a novice in their use. His coordination is instructive but not smooth and easy. He presses and strains, holds his books too close and is careless about light. As a result he often develops a spasm of accommodation, a sort of pseudo-myopia, which is often treated as a true myopia. Glasses for myopia sharpen the distance vision but are sure to exaggerate the spasm and cause a further increase in the strength of the lens necessary. The same condition often results in a spasm of convergence and sometimes becomes a frank strabismus with suppression of the instinct of fusion and binocular vision. When fusion is suppressed it is often difficult to reestablish. This sort of spasm frequently results in headache after close work, habit spasms of facial and other muscles and many apparently unrelated distant symptoms.

As the child grows he learns to coordinate his eyes easily, he can work longer and easier and read finer print. Nevertheless, the occurrence of headaches, inflamed eyelids and conjunctiva, the disinclination to read what is normally interesting or to keep up with classes should suggest a careful examination of the eyes. The eyes must be considered in determining the amount of education advisable, whether for a profession or a trade, and the type of

occupation selected. There are many careers in which acute vision and normal muscle balance are indispensable and others in which ability to bear continuous close work without fatigue or damage to the eyes is much more important.

YOUNG ADULT, ADULT AND MIDDLE AGE

During the educational period the eyes are used more than at any other time. In early adult life many occupations require continued close work but in that period large groups are encountered whose risk is not strain but industrial accident or disease. This is the period when syphilis, tuberculosis or focal infection take their toll. These often produce inflammatory diseases of the eye. Conjunctival infections, some of them dangerous, are often carried to the eyes by contact with dirty fingers. It should be part of everyone's personal hygiene to avoid touching any part of the eyes after handling money, holding straps in public conveyances, turning door knobs or water faucets in public rooms. The same rule applies to towels, medicine droppers and eye cups which others have used. Conjunctivitis is still encountered after attendance at unclean bathing beaches and public baths. When there is reason to anticipate an infection a mild prophylactic solution should be used. In all conjunctival diseases where there is secretion it is much safer to assume the possibility of contagion. Except in the mildest cases it is advisable to see an ophthalmologist.

After the onset of presbyopia in middle life the individual is reminded at intervals of a year or two that his near vision is failing and that he needs stronger lens. This is perhaps fortunate for at each change in glasses a careful examination is made. Middle life is the time when the degenerative diseases of the eye begin to appear in increasing ratio as lenticular opacities, optic atrophy of tabes, the choroid and retinal lesions of diabetes and nephritis, the first signs of retinal and perhaps cerebral arteriosclerosis. At this age too we must bear in mind the possible appearance of chronic simple glaucoma with the slightly dilated pupil and a tension that may be high only at certain periods during the day and night and as yet not revealing definite field changes except about the blind spot. Early discovery of any of these conditions may postpone or prevent blindness and perhaps save life itself for many years. Eyes which are inflamed or painful or develop sudden changes in vision suggest immediate care but it is astonishing how much loss of vision may be overlooked if vision fails gradually.

PROTECTIVE AND CORRECTIVE EYE GLASSES

The chief reasons for wearing glasses are to protect the eyes, to see well and to avoid strain.

The man who drives open cars or planes, cuts metal or stone or does electric welding must wear goggles.

The emmetropic or normal eye sees distant objects clearly without effort but near vision requires an automatic focusing or accommodation in which the chief elements are the ciliary muscle and the elastic crystalline lens and suspensory ligament. Accommodation is greatest in extreme youth and gradually diminishes until between 40 and 45 years it has reached the limit beyond which we cannot comfortably work or read without glasses and this condition is called presbyopia or old sight.

I think the most consistent offenders of the eye diseases in early adult life and old age is chronic simple glaucoma. As I have pointed out previously the indefinite symptoms that these patients have are nervousness, indefinite pains in the eyes themselves which may or may not be transmitted to the back of the neck, morning headaches, night pain, blurred vision at times, confusion of vision when driving at night, frequent changes of corrective lens with none of them satisfactory. These symptoms should always make one suspicious of an increased intra-ocular tension at various times during day or night. These patients should be examined and observed during the time it takes to make a diagnosis. The ophthalmologist should have information from a complete physical examination including foci of infection such as intestinal and genito-urinary disorders, gallbladder and appendix, dead teeth, tonsils and sinuses; also endocrine disturbances and vitamin deficiencies and a complete blood picture. These tests should go hand in hand with the ophthalmologist's examination.

The different provocative tests that are available today give one a rather complete picture of the intra-ocular tension. The following provocative tests will give some idea of the routine examination of the eyes.

PROVOCATIVE TESTS

The very early cases, those that lie on the borderline between normal and pathologic tension, are overlooked only too frequently and it is for the detection of these cases that the ophthalmologist must be constantly on the alert. Such patients may present a history of familial glaucoma, headaches appearing after a stay in a darkened room or after viewing motion pictures, or of headaches in the early morning hours. The eye itself may show numerous pigment dots, the pupillary reaction may be somewhat slower than normal with an unduly easy dilatation in light shadows, there may be the beginning of a halo around the disk or any one of the numerous other signs or symptoms that arouse suspicion but are not positive enough to

justify a diagnosis of compensated glaucoma. In such cases the provocative tests for compensated glaucoma must be tried.

The patient is first hospitalized and the intra-ocular tension measured tonometrically every four hours for twenty-four or preferably forty-eight hours, the resultant measurements being plotted graphically. Then the dark room test is made. In this the intra-ocular tension is measured and the patient is put into an absolutely dark room for one hour. At the end of that time the tension is again measured, care being taken to see that the measurement is made in the weakest possible light. In more than 50 per cent of the cases, the tension will be elevated from 15 to 40 mm. Hg. above the first measurement if an incipient compensated glaucoma is present. If there is no rise or very little, glaucoma cannot be ruled out. The increased tension is due to partial obstruction of the angle of the anterior chamber by the root of the iris which has become increased in the antero-posterior diameter by dilatation of the pupil beyond the threshold of that individual eye. Upon exposing the eye to strong light there follows a prompt contraction of the pupil and a sudden drop in the tension to the previous level.

The drinking test consists of the ingestion of one quart of water as rapidly as possible before breakfast with subsequent measurement of intra-ocular tension every fifteen minutes. When the test is positive the tension arises from 8 and 15 mm. Hg. in less than half an hour but a negative test does not preclude the possibility of an early compensated glaucoma. The coffee test consists in having the patient drink one or two cups of strong black coffee after which the intra-ocular tension (when the test is positive) arises from 15 to 25 mm. Hg. in from twenty to forty minutes.

If all these tests are negative and the four-hour tension curve gives no positive indication the pupil is then dilated with two or three instillations of 2 per cent euophthalmine solution and the tension is measured every half hour. If no rise in tension occurs within three or four hours, it may be said that an early compensated glaucoma is not present. But a positive outcome of any or all of the provocative tests is sufficient justification to keep the eye under the influence of a mild miotic and await developments.

It may be impossible for the ophthalmologist to discover the early onset of glaucoma. After giving the patient proper corrective lens the old method was then to give the patient a placebo to use at home. I think the use of a placebo is being rapidly discontinued by all ophthalmologists. A placebo (meaning "I will please") is

a medicine given for the purpose of pleasing or humoring the patient rather than for its therapeutic effect. It has been my practice to send the patient home with a regular routine of ocular hygiene.

A large percentage of patients, owing to the wear and tear of our high-pressure life, have a low grade conjunctivitis, inflammation of the conjunctiva and perverted secretion of the tarsal glands irritating the eye and making the person uncomfortable. The ocular hygiene consists of the following: An eye lotion composed of the following ingredients: Zinc sulphate, 00.4; saturated solution sodium borate, 120.00; aqua camphora, 15.00, and aqua. dest. q.s. ad., 240.00. The patient is taught to use and sterilize an eye cup. Following the use of the lotion eye drops are instilled into the eye which consist of the following formula: Benzocaine, 1:2500; suprenin bitartrate, 1:2500; acid benzoic, 1:3000; zinc sulphate, 1:1000, and aqua. boric q.s. ad., 30 cc. Following this a few hot packs are used across the eyes.

This eye hygiene morning and evening is used for the first two weeks. The patient is then asked to return to the office for observation and maybe at that time the tarsal glands are expressed. The patient is asked to report at longer intervals during the first year.

It would be well to give a review of the action and uses and the chemical composition of one of the principle ingredients in the eye drops which are used to keep these suspicious unproven beginning glaucoma symptoms to the normal tonometric limits, a synthetic prepared epinephrine (suprenin bitartrate).

Epinephrine has been successfully synthesized by a number of independent workers. When pyrocatechol (monohydroxyphenol) acts on chloracetyl chloride the resulting compound is chloracetylpyrocatechol. The latter when treated with methylamine forms methylamino-acetylpyrocatechol, a product with a distinct pressor action. This substance can be converted into racemic epinephrine by reduction. The bitartrate salt is then formed and by a process of fractional crystallization and purification it is possible to obtain the physiologically active levorotatory component (called suprenin) absolutely free from the relatively inactive dextrorotatory isomer. Probably with the foregoing facts in mind Hamburger combined one part of the slightly active dextrorotatory epinephrine with five parts of one of the ingredients used in its synthesis, methylamino-acetylpyrocatechol also having a pressor effect, and called the resulting preparation dextroglauosan. Although dextroglauosan was partially effective and free from unpleasant other effects it had to be administered by subconjunctival injection.

Hamburger, recognizing the difficulties and disadvantages of having to inject the drug, sought to increase the potency so that it could be applied topically by combining equal parts of synthetic levo-epinephrine with methylamino-acetopyrocatechol, naming the compound levoglaucon. Levoglaucon causes mydriasis and reduces the intra-ocular tension. The action often persists for several days. It is claimed to be effective in chronic simple glaucoma but less so in the acute form. From the foregoing discussion it is obvious that the efficiency of both levoglaucon and dextroglaucon depend chiefly on the epinephrine content.

Epinephrine bitartrate applied topically to the conjunctiva is a most helpful therapeutic agent for a number of diseases of the eye. Not infrequently a condition may be successfully managed by its use when other customary measures are ineffective.

Many patients with chronic simple glaucoma, especially those for whom surgical intervention is inadvisable, are made comfortable by the regular application of epinephrine bitartrate which reduces the intra-ocular tension more nearly to a level. When epinephrine is employed in conjunction with miotics the action of the latter is often enhanced.

In cases of glaucoma complicated by central cataract the vision may be greatly improved because of the mydriasis resulting from the instillation of epinephrine.

Since the pupil remains dilated even after the anterior chamber is opened epinephrine is preferred by some ophthalmologists to atropine as a mydriatic for use in operations for cataract.

Epinephrine is a valuable mydriatic for examination of the fundus in glaucoma or other conditions in which a rise in pressure might prove dangerous.

Good results are sometimes observed in cases of secondary glaucoma and the drug should be considered when other drugs have failed to control the pressure.

Because of its strong mydriatic action epinephrine is an efficient preparation for freeing synechiae in iritis.

Topical application of epinephrine produces fewer disagreeable effects than subconjunctival injection. The complication of sustained rise in tension following its instillation usually requires surgical treatment.

In 1924 Thiel suggested the use of epinephrine bitartrate in the form of a salve in concentrations of from 1:100 to 1:1000. In the last few years this drug has been prepared synthetically in powder form in ampules by Metz.

The primary action of levoglaucon and epi-

nephine bitartrate, causing a fairly rapid fall in tension in cases of chronic simple glaucoma, is due to anemia induced in the vascular bed. The prolonged lowering of tension is probably due to a temporarily improved metabolism of the eye.

CONCLUSION

1. Ocular hygiene should be carried out by everyone.
2. Eyes should be examined yearly by an ophthalmologist.
3. The public should be educated of the dangers of eye conditions.
4. Epinephrine bitartrate has a definite place in the treatment of eye diseases.
5. Provocative tests should be carried out when there is a definite symptom.
6. Eyes should be under the care of a competent ophthalmologist from prenatal life to old age.

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SQUAMOUS EPITHELIAL BONE CYSTS

That epithelial cysts not only occur in the soft tissues but may also extensively involve the phalanges is shown by the four reports in the literature which Arthur D. Bissell and Alexander Brunschwig, Chicago (*Journal A. M. A.*, May 15, 1937), summarize. They report two personally observed cases. In four of the six cases there was a history of trauma to the distal portion of the finger in which the cysts subsequently developed.

RELATION OF DENTAL FOCAL INFECTION TO OCULAR CONDITIONS

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So much has been said and so much written concerning the relation of ophthalmic inflammations to dental focal infections that I hesitate to bring it to your attention again. However, it has been our experience that outside of the persons with whom we are accustomed to practice it is often difficult to persuade the dental surgeon to be as radical and at the same time as conservative as we consider justifiable in view of the many ocular conditions that have been relieved by the removal of dental focal infections. This relief is usually so immediate that whenever marked improvement does not follow the removal of the major dental focus supposed to be at fault we proceed to the removal of other less suspicious dental foci. Our belief in the importance of the so-called minor dental foci has been purely empirical, but so consistent have been the results that it has become our creed and, as we always desire to substantiate our belief by facts, it was a gratification to read the paper of Charles A. Resch, D.D.S., of the Department of Dentistry of the Cleveland Clinic.¹ We take the liberty of quoting freely from this paper. In all probability you are all familiar with it. In this paper Dr. Resch said:

"Recently we had the opportunity of removing two teeth from a hospitalized patient. One was a lower left bicuspid which was devitalized and showed definite evidence of peri-apical involvement with a large area of rarefaction, and beyond this there was condensing osteitis. The other tooth which also was devitalized was an upper left lateral and the roentgram was absolutely negative to any apparent peri-apical pathosis. Both teeth were cultured by our bacteriologist, Mr. Reich, who used a brain agar culture medium and brain broth culture as contrast. Considerably more than two hundred colonies of bacteria grew on the agar culture. The bacteria from both teeth after incubations for twenty-four hours were later proved to be nonhemolytic *Streptococcus*. The profuse growth of a single species of bacteria on agar ruled out contamination. The essential point here was that the removal of the definitely radiographically positive teeth would not have excluded all the possible factors of dental focal infection."

The relationship of dental infection to systemic disease was probably recognized by the Egyptians 2600 years ago and Hippocrates is credited with advising the removal of carious teeth for the relief of rheumatism. In 1818

Rush wrote, "I have been made happy by discovering that I have only added to the observations of other physicians in pointing out a connection between the extraction of decayed and diseased teeth and the cure of general diseases . . . It is not necessary that they should be attended with pain in order to produce diseases"; and Black² says, "the periodical literature of dentistry dates from 1839," and gives attention to a series of Journals³ in which ocular diseases caused by dental lesions are tabulated as follow: Accommodation (diminution or loss), amaurosis, amblyopia, blepharospasm, cataract, chronic ophthalmia, conjunctivitis, corneal inflammations, exophthalmos, extra-ocular muscle spasms or paralysis, fatigue, glaucoma, hypermetropia, iridocyclitis, iritis, keratoscleritis, lagophthalmus, mydriasis, myosis, neuralgia, ophthalmic neuritis, orbital abscess, phlyctenular, ophthalmia, ptosis, scleritis, strabismus, uveitis.

In 1916 Billings published his book on "Focal Infections." The widespread acceptance and general recognition of dental disease as a focus for the spread of infection and inflammation to distant parts of the body, as we understand it today, really dates from Billings' publication. Granted that many clinicians recognized this relationship and that many workers were striving to explain it scientifically long before 1916, yet it must be admitted that the rank and file of the dental and medical professions gave it little consideration.

Billings and his associates correlated clinical, bacteriological and experimental findings and stressed the importance of peri-apical infections, which we feel satisfied is generally admitted today. This work was the stimulus which activated the vast amount of investigation by both the medical and dental professions to the present time. The development of dental roentgenology proved the teaching of Benjamin Rush to be true that "it is not necessary that they (the diseased teeth) be attended with pain to produce diseases," and permitted our adding that, as far as external appearances were concerned, the tooth might appear healthy and normal but the roentgram would show definite disease.

Billings' early definition of focal infection was simply, "a circumscribed area of infection," but Hatton⁴ and his associates at Northwestern University have elaborated this definition as follows: "Focal infection is a chronic process beginning in some epithelial defect and later involving remote parts of the body by establishing new bacterial colonies or by toxemias, caused chiefly by streptococci and sometimes staphylococci."

Rosenau⁵ in a series of experiments was able to demonstrate that organisms in chronic foci

vary greatly in their affinity for different tissues of the body, and he emphasized that a focus is not only an area in which organisms multiply and enter the blood stream but also a place where tissue affinity is acquired. By studying the migratory movements of bacteria in an electrical field he has since endeavored to determine the reasons for this elective localization. He found that streptococci from similar sources in patients with different types of disease had a definite variation in cataphoretic time velocity. Of particular interest were his observations of the shift of the cataphoretic time and velocity of streptococci isolated from nasopharynges and apices of the teeth of patients suffering from arthritis, encephalitis and other diseases.

According to Resch, however, the question in which the dental practitioner is vitally interested is, how can we demonstrate with the diagnostic means now at hand that dental infection actually exists? The answer simply stated is that such a condition cannot actually be so demonstrated. Rosenau has shown the complexity of the ramifications surrounding the problem. If it were possible to classify the histopathological phase by microscopic study of the teeth in question and to examine the tooth and tissue without sacrificing either, the solution might be obtained.

Haden approached this problem from the bacteriological viewpoint. He attempted to correlate the bacteriological and roentgen findings. He found that in 500 pulpless teeth, which were radiographically negative, 46.2 per cent contained cultures of ten or more colonies; of 500 pulpless teeth which were roentgenographically positive, 62.8 per cent on culture contained ten or more colonies. In the controls, 400 vital teeth were examined and on culture only 4.8 per cent had ten or more colonies. Viewing his results from a negative aspect, we find that of the positive pulpless teeth, 26 per cent were negative to bacterial growth in deep agar culture medium; of the negative pulpless teeth, 44.3 per cent were found to be negative in deep agar culture medium; of the vital control teeth 85.5 per cent were found negative. In explanation of the 4.8 per cent of the vital teeth in which ten or more colonies were cultured, it is necessary again to refer to Rosenau's work in which cultures of *Staphylococcus albus* were planted in the anterior vital teeth of dogs. After a period of time, extraction of these vital teeth revealed the presence of the organisms in the pulp canals and at the apices of other nonvital teeth *in situ* which had not been contaminated experimentally. After a longer period of time, other sound teeth that were removed were found to be sterile, but the nonvital teeth extracted later remained contaminated. From this work it was concluded that all teeth are affected by bacteria if such

bacteria have access to the general circulation. However, vital teeth in general have the power of overcoming invasion, provided the general resistance of the host is normal, while nonvital teeth apparently do not have this ability or resistance and remain as a source of continued infection.

Haden and Rosenau recognize four possible groups of dental focal infection: (1) The positive and negative pulpless tooth with chronic peri-apical infection; (2) pyorrhea alveolaris and pockets surrounding partially erupted teeth and under poor restorative appliances; (3) chronic pulp infection in vital teeth, and (4) residual alveolar infection following dental extraction.

Rhoads and Dick⁶ extracted pulpless teeth radiographically negative from all parts of the mouth and studied them bacteriologically. They concluded that it seemed justifiable to regard all pulpless teeth as probable foci of infection whether or not radiograms showed changes in the apices; they further emphasized that this is true in the presence of systemic disease of a type which usually is associated with focal infection.

The Northwestern University group⁷ recognize the following dental foci: (1) the peri-apical involvement which is primarily of metastatic origin or the result of a bacteremia in which a focus is set up at points of weakest local resistance; (2) pyorrheal infection which is primarily toxic and not a true lateral abscess but a circumscribed one caused by poor drainage and a low grade chronicity; (3) the pulp infections or a localized abscess in otherwise normal pulp, which is predominantly toxic and is the most potent factor in dental focal infection. In this group the symptoms of discomfort are present but often referred. Testing the vitality of such a tooth may show a reaction varying from normal to sluggish, hypesthesia to hypersensitivity. The tooth usually shows a large restoration and in such instances the radiogram is of little diagnostic value. Pulp stones may be recognized and be the only roentgen clue. The fourth class recognized by the group at Northwestern is the partially erupted third molar with recurring pericoronitis and tendency to become toxic. These workers have studied focal infections not only from the bacteriological standpoint, but also from the histopathological angle and present slides of the microscopic picture found at the apices of these teeth *in situ*. Areas of peri-apical rarefaction do not necessarily mean infection. This group has been able to demonstrate areas of rarefaction at the apices of teeth in which there was no round cell infiltration or bacteria.

Resch says: "Since it has been shown bac-

terologically and clinically that the teeth and oral sepsis play an important rôle in the general health in the majority of cases, we should attempt to eliminate the practice of extracting teeth that do not appear to be causative factors in the production of systemic dyscrasias. No tooth should be removed on the mere assumption that it is the definite cause of the complaint because it is recognized that the products of such teeth may act as sensitizing agents and therefore should be considered a secondary rather than a primary cause. Indeed, I feel safe in regarding the majority of infectious teeth in this light rather than as etiologic factors. However meager may be our total means of evaluating such conditions, the application of 'snap diagnosis' is to be less condoned than extolled as a sensible economy. The most thorough diagnostic studies at our command must be employed. From the dental standpoint, these include a history of dental discomfort, a complete digital examination of the mouth including a test of the vitality of the teeth, and a complete roentgen examination. Roentgen examination of two suspicious looking teeth for the purpose of determining the general condition is inexcusable from the standpoint of conscientious and thorough practice and is usually worthless from an economic viewpoint. If, after a complete survey, there is evidence of abnormality of the oral structures, the age, the position of the tooth and its proximity to important structures, the condition of the tooth, the importance the patient attaches to his teeth as to care and condition of the mouth, and finally the general complaint of the patient in addition to evidence of low grade infection, determine whether a suspicious tooth should be extracted. It is in such problems that dentistry and medicine merge, and only after the fullest cooperation between both professions does the final therapeutic result justify the measures attempted. In dealing with these problems it is not entirely a question of how much infection is present, but how well can we ascertain that such conditions exist. Unless a complete understanding of the condition can be procured before the teeth are condemned many normal teeth will be sacrificed; and even with all due caution teeth that may be causing no trouble will be removed; but this number will become smaller with continued observation, study and more complete records."

REPORT OF CASE

H. V., male, aged 37, switchman, entered the hospital November 23, 1936, with history of having a foreign body removed from the left eye three days previously. On admission there was an ulcer on left cornea 2 mm. at nasal limbus; was taken directly to operating room where ulcer was cauterized at dull red heat.

Given 50 mg. typhoid-paratyphoid intravenously with reaction of 103. Calcium gluconate, dr. 2, t. i. d., P. c., in one half glass of milk; 1 per cent atropine every three hours; $\frac{1}{2}$ per cent optochin every three hours; methylene blue dusted on ulcer; xeroform powder b. i. d., followed by hot packs, high vitamin diet, bed rest. General examination showed urine negative except for faint trace of albumin, R. B. C. 4,760,000, W. B. C. 5000, blood Wassermann negative. Ear, nose and throat examination showed marked deviation of nasal septum, some postnasal dripping, chronic tonsillitis, teeth questionable, cloudy maxilla, chronic maxillary sinusitis, washings negative, lipiodol injected into left; roentgen rays negative for thickening of mucous membrane of antrum. Impression: Sinusitis, chronic tonsillitis, teeth, perhaps. Was treated each day in the ear, nose and throat clinic. Genito-urinary examination: Patient had a chronic prostate a year or two ago; no symptoms now; urine clear, no genito-urinary diagnosis.

On November 27, 1936, eye definitely improved and anilin red was used in clinic. Hot packs and atropine discontinued, optochin and 5 per cent dinion continued.

On December 5, 1936, ulcer healing slowly.

On December 9, 1936, given 50 million typhoid-paratyphoid with reaction of 101.4, atropine, optochin t. i. d. and 5 per cent dinion b. i. d. with discontinuance of gluconate.

On December 15, 1936, sent for roentgen ray of mouth. Patient had been insistent upon no dental work to date.

On December 18, 1936, tonsillectomy done. Cornea continued to heal slowly.

On December 21, 1936, there was more circumcorneal injection with return of pain. Put on 1 per cent atropine every three hours, $\frac{1}{2}$ per cent optochin b. i. d., methylene blue once daily, calcium gluconate dr. 2, t. i. d., P. c.

On December 23, 1936, 150 million typhoid-paratyphoid was given with reaction of 100.

On December 28, 1936, two teeth, numbers 13 and 14 extracted and treatment continued; on December 31, 1936, teeth numbers 2, 3, 4 and 5 were extracted. Following these extractions there was rapid healing of ulcer.

On January 2, 1937, there was no staining of cornea to fluorescein.

The dental report was made by Dr. W. W. Shineman. Full mouth roentgen rays taken on December 16, 1936. Findings: Extensive process absorption due to pyorrhea involving all teeth in maxilla. Mandible showed moderate amount of process absorption due to pyorrhea. Extractions 13 and 14 made December 28, 1936; extractions 2, 3, 4 and 5 on December 31, 1936.

It is our custom, which I believe is the consensus of opinion, to consider, first, teeth; second, tonsils and, third, paranasal sinuses and after these prostate, gallbladder, appendix, etc., as foci of infection affecting the eye. The dental foci of infections are always to be considered first regardless of their order of importance clinically.

We have spoken of the vast amount of information obtained by roentgen examination of the teeth but as with every good thing there are many disadvantages. These disadvantages, however, are because of abuse rather than use. Chief among these is the wholesale roentgen

raying by dentists and physicians as well as technicians, most of whom are improperly trained both in the technic of making the exposure and in the interpretation of the roentgram. To my mind this is highly specialized work and should be so considered by all dentists and physicians.

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INTERNAL FIXATION OF TRANS-CERVICAL FRACTURES OF THE FEMUR

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The three flanged nail method of internal fixation for intracapsular fractures of the neck of the femur has elevated these injuries from a most dreary and vexing problem to the forefront of clinical attraction. As time progresses indications for nailing will be more precisely enunciated by clinics having a large amount of material at their disposal. The principle of the nail is being accepted in different parts of the world. Modifications of the original method of its insertion which minimize the surgical procedure are naturally restricting the open operation to a small group of well defined selected cases of nonunion in the hands of most surgeons who have adopted this method of treatment. The principle of the nail is simple enough but the technic of its insertion is surprisingly complex. No procedure for internal fixation of these fractures should be termed "simple," not excepting any of the various substitutes for the nail such as wires, pins, screws and bolts. Successful nailing will depend upon the qualifications of the surgeon, adequate equipment and meticulous technical execution. Lack of any one of these fundamental requirements will reflect discredit upon a method which is sound and has stood the test of time as indicated by the excellent results reported in unselected series of cases so treated.

The obstacles and complications of the plaster cast method of treatment are appreciated and dreaded by the doctor and patient alike. The modern method of internal fixation has eliminated such controllable pitfalls as high mortality rate, limited percentage of bony union, physical, psychological and financial ordeal for the

patient, inadequate fixation and retention of the fragments, decubiti and joint stiffness. It has minimized the relatively uncontrollable and uncertain factor of early or delayed femoral head necrosis and absorption of the femoral neck because of accurate reduction and practically unlimited absolute immobilization of the bony fragments. There will always remain an inevitable mortality rate in patients who are nearing the final stages of life. A mortality rate of about 10 per cent may be expected from the routine adoption of the original open operative procedure. A small percentage of nonunions will result from technical lapses and anatomical peculiarities since in a few cases, on the basis of the local senile degenerative or even pathological changes which have precipitated fracture, aseptic necrosis of the femoral head and absorption of the femoral neck may be expected. For these cogent reasons modern therapy recognizes the possibilities of and accepts the responsibilities of operative intervention as the most effective answer to the ancient challenge of the "unsolved fracture."

It should be remembered that the success of the modern method of internal transfixation of these fractures is dependent upon the established principles of reduction, fixation and retention of the fragments as enunciated by Royal Whitman. The novice attempting this operative procedure will encounter obstacles which may in the occasional case be insuperable. Proficiency is built upon a recapitulation of most of the experiences suffered by the pioneers in this field. The value of a careful study of the literature and actual clinical observation of the method is obvious. It is my purpose to discuss briefly, on the basis of my own clinical experience, what I believe to be the five cardinal features of this therapeutic procedure in the order of their importance; the surgical risk, infection, roentgen ray, nail and the fracture itself.

SURGICAL RISK

The original method of introducing the nail is an extensive procedure with a mortality of about 10 per cent. Since the so-called "blind" extra-articular method has minimized this, it should be the method of choice. The latter is usually carried out under roentgenographic control by one of the several ingenious technics so well described in the literature. However selected instances of nonunion as well as a limited number of fresh fractures which cannot be satisfactorily reduced by closed manipulation for one reason or another will require complete operative visualization.

REPORT OF CASES

Case 1. (Fig. 1.) David D., a white male aged 74 years, was treated expectantly for two months before



Fig. 1. Preoperative and postoperative roentgen rays of case 1 (David D.). Since the fracture was of two months duration an open operation was preferred and performed. The position of the nail is excellent and the reduction anatomical.

his admission. An open reduction and nailing was performed under ether anesthesia. The cancellous portion of the neck was gone leaving only the cortical rim. Small bony chips removed from the supracotyloid margin served to fill in this defect. The convalescence was uneventful except for temporary urinary difficulties which ceased as soon as the patient was allowed absolute freedom in bed. (Fig. 8.)

Case 2. Florence M., white obese female, aged 75 years, suffered a nonunion for six months. At the urgent request of the patient and her relatives an open reduction and nailing was done. Again the absorption of the femoral neck necessitated the use of bone chips. Her convalescence was uneventful and she was pain free for the first time since her fracture. She was hospitalized for fifteen days and began crutch mobilization two months after operation.

A good surgical risk is imperative for the open operation and is absolutely contraindicated in the aged or otherwise uncooperative patient. On the other hand the age factor alone does not contraindicate operation since many such patients have been subjected in the past to various pegging operations or other surgical procedures of a more palliative nature. The most important factor in operative indication is to remember that the fracture is not an emergency situation. The patient should first be made comfortable by a suitable form of suspension and traction. This offers an opportunity for a preliminary observation of the patient's reaction to the fracture, thorough physical examination and clinical laboratory investigation. The initial general reaction may be severe enough to contraindicate any form of operative treatment for the time being. On this basis the all important factor of anesthesia is decided; whether spinal, local or general, of which the former two are preferable. The following case, one of the two operative deaths in my series, illustrates the advisability of adequate preliminary observation.

REPORT OF CASE

Case 3. Hulda K., white female aged 66 years, was admitted to the hospital in poor condition due to exposure to the cold following her fracture. She was operated on four days later, after a rather stormy initial convalescence, under general anesthesia. The immediate postoperative reaction was good but forty-eight hours later the patient exhibited a general vasomotor collapse and pneumonia which proved fatal in several hours.

INFECTION

Scrupulous asepsis remains the primary obligation of the surgeon when he introduces a foreign body permanently through the fractured ends of the bone within the joint, where either lapses in sterility or unfavorable general factors governing infection are attended by the gravest risks and consequences. These complications are minimal in the extra-articular technic insofar as operation goes, but the proximity of roentgen ray equipment for roentgenographic control will tax the ingenuity of the operating room personnel to the utmost in order to maintain the strictest sterility. Careful preoperative sterile skin preparation is essential as in any orthopedic procedure. In the aged and in the obese the extensive soft tissue dissection incident to the open operative procedure occasionally leads to temporary sinus formation.

REPORT OF CASE

Case 4. Nell F., a white obese female, aged 60 years, was admitted immediately and made comfortable by suspension and traction. There was a mild febrile reaction for several days and after nine days of preliminary observation an open operation was performed under ether anesthesia. Within twenty-four hours she developed signs of sepsis due to a streptococcal infection and died on the sixth postoperative day.

ROENTGEN RAY

The reduction of the fracture must be complete, absolute proof of which can be furnished only by good anteroposterior and lateral roentgenograms. (Fig. 2.) The surgeon should insist on good lateral exposures, especially since the curved cassette is no longer essential for this. An anatomical reduction is the aim of the opera-



Fig. 2. Anteroposterior and lateral roentgenograms after closed reduction, in a case operated through a small lateral subtrochanteric incision under roentgenographic control. The measuring rod is in position.

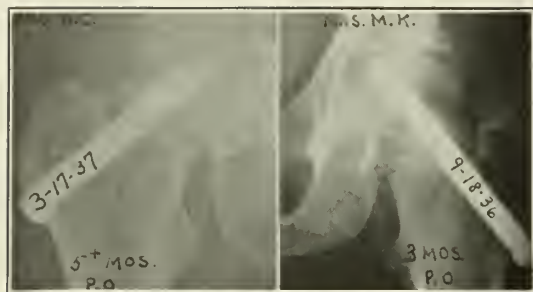


Fig. 3. Postoperative roentgen rays of two patients who are clinically cured. (1) Five months after an operation. (2) "Blind" technic, three months postoperative. No callus is evident but the fracture lines are practically obliterated.

tive procedure but a slight valgus is permissible and sometimes preferred. One should never be satisfied with a varus position since it enhances shearing stress at the side of fracture which is perhaps the most common cause of nonunion. An accurate preliminary roentgen ray study of the site of injury will help to determine the line of attack in the individual case. In this connection it is well to remember that bony union as judged by roentgenographic evidence is unreliable since there is little or no external callus and the amount of internal callus is difficult to estimate. (Fig. 3.) Bony union may require a year or longer to take place. The nail should not be removed under a year and may remain indefinitely.

THE NAIL

The gradual evolution of the nail has led to its present efficient one piece construction, in both the cannulated and solid variety. The author prefers the latter whenever possible since it displaces the least bone and has sharper points. Above all it is essential to use a nail made of proper chrome-nickel rustless steel since corrosion of this alloy is minimal. Encapsulation is to be expected of such a foreign body. Reoperation was necessary in one case because of extensive corrosion of a nail made of ordinary rustless steel which extruded spontaneously and caused nonunion fifteen months after the initial operation.

An accurate preoperative determination of the length of the nail is absolutely essential to insure its engagement to the greatest possible depth of the femoral head without penetrating the joint. A metal measuring rod graduated in $\frac{1}{4}$ inch grooves is strapped to the outer aspect of the thigh level with the neck of the femur on the uninjured side. (Fig. 2.) With the hip abducted and internally rotated a film is taken. The true length may now be determined by measuring the shadow of the femoral neck against the equally magnified shadow of the grooved rod. A variety of sizes should be on hand. It is good practice to subtract $\frac{1}{4}$ inch

from the determined length to compensate for the initial traumatic and subsequent impaction shortening of the femoral neck. This is the most exacting part of the entire technic. It is surprising how difficult this is even under the direct visualization of the open operation. Kottwitz's experiments on femurs freshly obtained at autopsy on which he tested the fixation of the Smith-Peterson nail indicate, and my own observations confirm, that the trochanteric cancellous portions are mechanically less adequate than are those of the femoral head. This contraindicates nailing in trochanteric and even in most basal fractures. The ideal position of the nail would seem to be to have it lie parallel to and almost upon the lower cortical rim of the neck of the femur and not centrally in the cancellous portion. To accomplish this the nail should be inserted well below the lower margin of the trochanter. (Fig. 4.)

THE FRACTURE

The rather broad classification of fractures of the hip demands a more accurate definition for orientation as well as for therapeutic and prognostic reasons. These fractures fall naturally into two groups (Fig. 5); i. e., fractures through the narrow part of the neck (intracapsular) and trochanteric fractures (extracapsu-

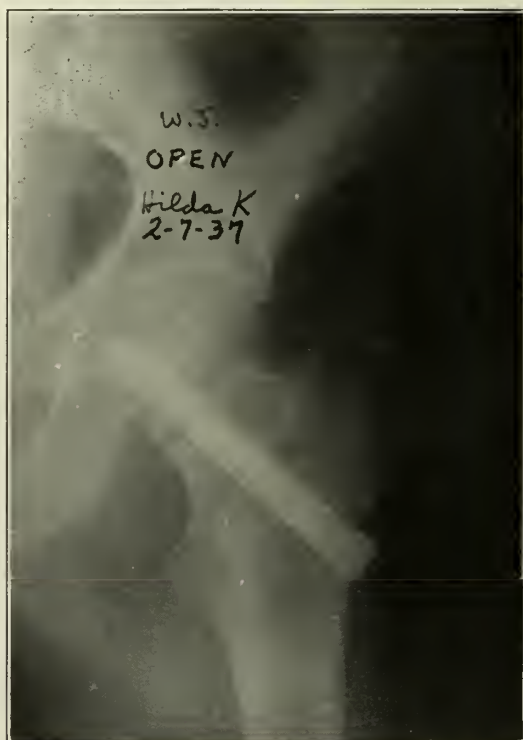


Fig. 4. Open operation by the Watson-Jones technic showing ideal reduction (slight valgus) and position of the nail (rather low).



Fig. 5. Roentgen rays showing classical forms of upper femoral fractures: (1) Trochanteric (arrow points to site of fracture), (2) valgus, (3) varus (arrows point out lines of force inducing fracture). There are various degrees of severity in each with their accompanying displacement.

lar). Fully two thirds of all upper femoral fractures are trochanteric or benign and do not require nailing since bony union may be expected in practically all survivors. About 20 per cent of the intracapsular variety are in valgus and are more or less impacted or interlocked. (Fig. 5 (2).) Impaction is of relative significance only from the operative point of view. In these bony union also may be expected if some form of adequate treatment is instituted. However, true impaction is perhaps less common than is generally supposed. (Fig. 6.) More often the fragments are merely interlocked. The lack of displacement or the occasional incomplete fracture simulates impaction which sometimes cannot be differentiated even at operation. Be that as it may, this "stable" position need not be disturbed if four fifths of the opposing surfaces are in functional contact as proved by adequate roentgenographic study. Bony union is practically assured in all such cases which can tolerate nailing.

About 80 per cent of the intracapsular fractures of the femoral neck are in varus (Fig. 5 (3)) and are the severest type of fractures involving the joints. That the open operation is not likely to be entirely abandoned may be attributed to the variable features of this type

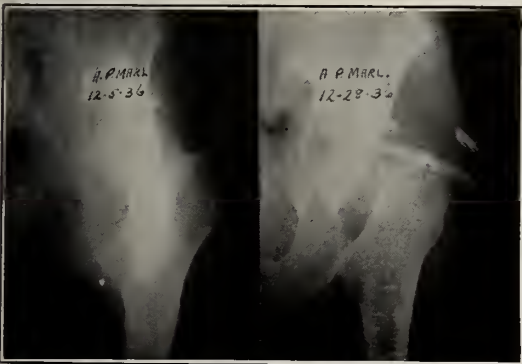


Fig. 6. (1) Patient aged 74 years, suffered a fracture two weeks before admission. He had continued to bear weight until persistent pain, swelling and discoloration forced him to seek medical advice. Because of apparent impaction and doubtful general condition, expectant treatment was instituted. (2) Displacement occurred about three weeks later. He refused more active treatment, went down hill steadily in spite of attempted mobilization and died of hypostatic pneumonia several weeks later.

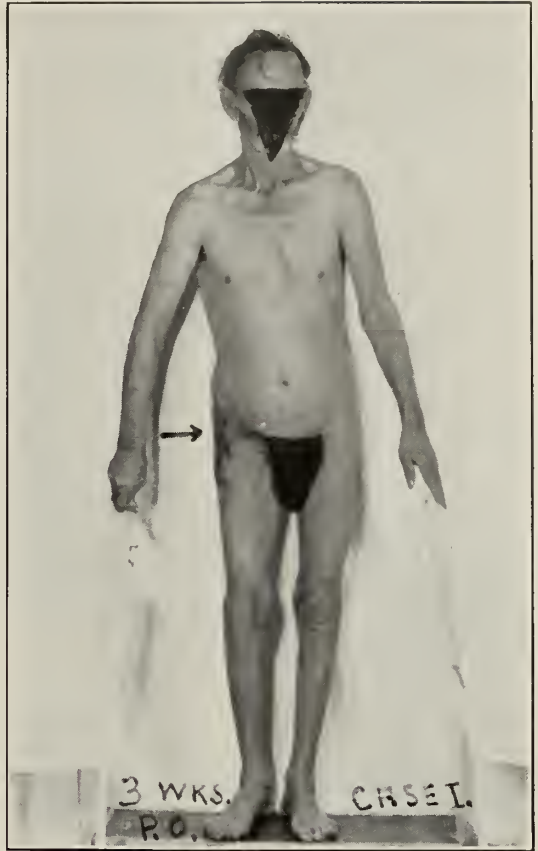


Fig. 7. Patient (David D., Case 1) standing several times daily three weeks after open operative reduction and fixation. This type of postoperative mobilization is not imperative to prevent hypostatic pneumonia.

of intracapsular fracture. The open operation is indicated in such cases when an adequate closed reduction cannot be obtained. It is a fact, as observed at operation, that interposition of capsular and bony fragments occasionally does occur and prevents accurate reposition. No attempt at the extra-articular operation should be made in the absence of adequate facilities for roentgenographic control or inability to perform the more extensive open operation if necessary. In several fresh fractures an amazing amount of the cancellous portion of the femoral neck was already absent leaving only the cortical rim. Open operation facilitated the use of small bone chips removed from the supracotyloid region for correction of this defect by packing.

SUMMARY

The Smith-Peterson method of internal fixation for intracapsular fractures of the femur bids well to supercede all other recognized forms of treatment. Of the 179 cases reported in the literature which was available to me there were 137 (85 per cent) instances of bony union and a general mortality rate of 9 per cent (12 cases).

No end results can be personally reported since my cases have not been observed for the required minimum period of two years. However bony union is expected in about 75 per cent of this first series treated by nailing.

The writer has treated twenty unselected cases of transcervical fractures of the femur by nailing with a general mortality of 15 per cent and operative mortality of 10 per cent; lower than that resulting from all forms of nonopera-

Table I. General Analysis of Intracapsular Fractures

Treatment	Cases	Bony Union	Non-union	Still Under Treatment	Mortality
Non-Operative	23	6 (26%)	10 (43%)	1 (4%)	6 (26%)
Operative (Nailing)	20	?	1 (5%)	16 (80%)	3 (15%)
Total	43				9 (20%)

The writer has personally treated, in the past two and one half years, (all operative) or observed in consultation forty-three cases of intracapsular fractures of the hip. The non-operative treatment includes: Whitman cast eight (bony union three, mortality 25 per cent); Roger-Anderson seven (bony union two, mortality 14 per cent); traction six (bony union one, mortality 33 per cent); expectant two (bony union 0, mortality 50 per cent). In the operative group two reconstruction and one bone graft operation are not included (general operative mortality of only 13 per cent).

tive treatment (table I). There were fourteen females and six males. Their ages ranged from 48 to 75 years, averaging 50 years, and sixteen were in the sixth and seventh decades. There were fourteen fresh fractures and six instances of nonunion. The open operation was performed in fifteen cases (nine by the original Smith-Peterson technic and six by the less extensive procedure of Watson-Jones), and the extra-articular operation was used in five. Ether was used in thirteen cases, ethylene in one, local anesthesia in three and spinal in three. Infection occurred in two cases, extreme valgus of the head in one and the nail penetrated the acetabulum in two. The period of hospitalization ranged from six to thirty-five days and averaged twenty days. Crutch mobilization was begun in from two to eight weeks and averaged twenty days after operation.

There is considerable discussion regarding the relative advantages and disadvantages of the two methods of approach. The writer will prefer the closed method in the future for all fresh fractures and limit open operative exposure to selected cases of nonunion. The brilliant results of Watson-Jones with his lateral open operation deserves serious consideration. The writer prefers this technic when open operation is indicated in those cases in which there is no structural shortening of the pelvic and femoral group of muscles since the operation is less extensive. The closed extra-articular method has resolved itself into a painstaking technical procedure which should be followed to the letter or not attempted at all. Finally, the open operation may be rapidly performed while the "blind"

method though much less shocking to the patient is rather time consuming. Team work is more essential to the closed method than it is on the open operation.

Unfortunately the operative method is not a universal method for all cases of intracapsular fracture of the hip joint. Since the procedure is now established, a careful selection of cases is indicated especially in patients 70 years and over. There is no point in attempting the impossible and thereby discrediting an excellent procedure. However, the vast majority of these cases do occur in the sixth and seventh decades.

Experiences with the open reduction and fixation of fresh fractures have revealed several important factors relative to this situation. Interposition of soft tissue and bony fragments, while not so common as was formerly believed, was definitely present in several of the writer's cases. A very early loss of the cancellous portion of the femoral neck occurred in several instances which obstacle was overcome by packing with bony chips removed from the supracotyloid region. This may be expected in most cases of nonunion of long standing even though the roentgen ray reveals a fairly good portion of the distal neck still present. Traction is not an important factor in the reduction of these fractures. In several cases where a traction table of the latest design was used and only moderate traction applied, the distal fragment was always found entirely below the glenoid cavity. Therefore, Leadbetter's modification of the Whitman manipulation, as adopted by Smith-Peterson himself, is sufficient to effect accurate reposition of the fragments (as checked by roentgenograms or fluoroscopy). It is evident that the factor of posttraumatic inadequate circulation to the femoral head has been over emphasized since bony union may be expected in the vast majority of cases after accurate reduction and internal fixation for an adequate period of time.

The writer has stressed the pitfalls of the method that were personally encountered in his series of cases and has discussed the five cardinal features, i. e., operative risk, infection, the nail, roentgen ray and the fracture itself. There has been reported an instance of penetration of the guide into the pelvis and several cases of osteo-arthritis sequelae and even refracture. Loosening of the nail and its spontaneous extrusion has also been reported and remedies suggested.

The after treatment deserves special consideration. No plaster spica or other cumbersome fixation is used after operation by the writer. In old cases of nonunion, suspension and traction for a period of about three to six weeks, until complete healing of the soft parts has oc-

curred, is preferred. In fresh fractures, the same or a simple light foot cast with an 8 inch stick incorporated below so that the limb will lie flat and not rotate externally is usually sufficient for the same period. Although some of my cases were allowed on crutches as early as two weeks after operation, this is not to be encouraged except in occasional cases where it is absolutely indicated. When necessary, the patient may sit up and turn in bed immediately after operation which is enough to avoid hypostatic congestion in the oldest patients, early weight bearing is not imperative. Valgus fracture patients may be permitted crutch weight bearing in from four to six weeks if the patient is not overweight. Subcapital fracture patients should remain in bed at least from six to eight weeks. Weight bearing should be guarded for at least from four to eight months. In old ununited fractures, crutches should be insisted upon for from six to twelve months. The use of an efficient walker will facilitate initial mobilization.

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HYPERTHYROIDISM

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Hyperthyroidism is a disease of unknown etiology characterized by an abnormal increase in the functional activity of the thyroid gland.

It is impossible in a short paper to go into a detailed discussion of our present conception of the physiology and pathology of the thyroid gland. The present status of our knowledge of the clinical pathology of toxic goiter, or hyperthyroidism, may be summarized as follows: (1) That the thyroid gland shows the characteristic changes of hypertrophy and hyperplasia; (2) that iodine in any form is rapidly absorbed by the hyperplastic gland with resulting involution to a phase similar to the colloid or resting gland; (3) that there is a corresponding amelioration of the clinical symptoms and signs; (4) that this improvement is temporary and that even though iodine therapy is continued the majority of cases show a return to the hypertrophic state and a recurrence of the signs and symptoms of the disease; (5) that the iodine content of the gland is inversely proportional to the degree of hypertrophy and hyperplasia, and (6) that the nodular goiters are not usually adenomatous in the sense of being neoplastic, but are the result of previous involutional changes resulting in the formation of circumscribed masses.

The simplest classification of cases of hyper-

thyroidism divides them into two groups: (1) Those showing a diffuse involvement of a previously normal gland, and (2) those showing a somewhat irregular involvement of a gland associated with a nodular enlargement. The latter feature, according to our best knowledge, is indicative of previous changes in the thyroid gland. These cases have been called toxic adenomata or adenomatous goiters with hyperthyroidism, which term carried the implication that they were instances of a disease condition that was separate and distinct from diffuse hyperthyroidism (exophthalmic goiter).

The differences, however, most probably lie in the condition of the gland prior to the development of parenchymatous hypertrophy and hyperplasia rather than in the essential nature of the disease. The two types will be discussed under one heading.

The cardinal symptoms of toxic goiter are really classic. They are, enlargement of the thyroid gland, tachycardia, tremor, exophthalmos, a voracious appetite and elevation of the basal metabolic rate. Not all these are constantly found. Sometimes only the increased metabolic rate is present, and this may be as truly a toxic goiter as if all the other symptoms were in evidence.

A rather detailed analysis of the symptoms may be of value not only in making a diagnosis but to aid in evaluating the severity of the case. In most cases the gland is not greatly enlarged. Sometimes no enlargement is apparent on superficial examination, but there is some increase in size.

Eye Signs.—Sometimes the eyeball does not definitely protrude, but a staring expression may be noted. In approximately half of the cases there is definite exophthalmos. Sometimes it is only present on one side and often the protrusion is greater on one side than on the other.

Widening of the lid slits is often noted even when there is no true exophthalmos. It is accompanied by a staring expression. This phenomenon is caused by a retraction of the upper lids which exposes the sclera. This symptom is best demonstrated by causing the patient to fix the eyes suddenly upon some object.

Infrequent winking is another important sign. A normal individual winks 30 to 40 times per minute. In hyperthyroidism about one third of the cases wink much less frequently, sometimes only once in two to four minutes. It is fair to say this observation is of much greater value if it is made without calling the patient's attention to what you are doing.

Lagging of the upper lid is present in about four fifths of the cases and is considered the most dependable of all eye signs. Many times the lids come down in a succession of jerky

movements. If the forehead does not wrinkle when the eyeballs are turned upward, we have another sign of considerable value. There are several other eye signs which are less important than those mentioned.

Cardiac Signs.—A persistent tachycardia with palpitation are symptoms which usually run parallel with the basal metabolic rate and the degree of hyperthyroidism. The premature systolic sound and auricular fibrillation are the arrhythmias most commonly found. It is a question whether they are due to degenerative myocardial changes or to the thyroid secretion stimulating the sympathetic nerves with a simultaneous inhibition of the vagus nerve.

Disturbances of the Skin and Its Appendages.—A moist, pale, thin and delicate condition of the skin is a characteristic of hyperthyroidism. There is habitually a hyperactivity of the sweat and sebaceous glands. More oil is secreted than normally. The sweating is not so likely to be general as local. The sweating areas are most often the axillae, the hands and feet. Acne vulgaris spots are frequent.

Most cases of hyperthyroidism have a subjective sense of heat. Rooms kept at ordinary temperatures are complained of as too warm. The surface temperature of the body is above normal.

Many of the patients show a diffuse erythematous blush over the head and neck probably due to the action of the thyroid secretion on the sympathetic nervous system.

A pigmentation is often seen about the eyelids, axillae, genitalia, linea alba and the areola about the nipples.

Falling hair is not uncommon and sometimes the hair becomes gray prematurely. Trophic disturbances of the fingernails are often observed.

Most, if not all, the phenomena affecting the skin and its appendages are probably due to the secretion of the pathological thyroid stimulating the sympathetic nervous system.

Disturbances of the Alimentary Canal.—Almost every case of true toxic goiter is characterized, until toward the close, by a voracious appetite with loss of weight. As Rienhoff so aptly puts it: "The furnace is stoked with the drafts open." The burning of the tissues is so rapid that it is impossible to consume enough food to replace them. A patient who happened to have a gastric ulcer and a toxic goiter would be a pitiable object. A laborer eats less than one of these patients and retains his weight, but he rests at night while the goitrous patient never rests.

Vomiting, often projectile in type, occurs in about one patient in eight. The vomiting is frequently paroxysmal and usually occurs with-

out nausea. The vomiting may be repeated several times at short intervals and then entirely disappear.

In cases of unusual severity or when a fatal termination is imminent, there may be many watery stools daily. As soon as improvement occurs the diarrhea ceases.

Disturbances of the Genito-Urinary System.—Albumin and granular casts are sometimes present in severe cases; but this does not mean a serious kidney lesion for at autopsy only a cloudy swelling of the parenchyma is found.

Not infrequently, the patient with hyperthyroidism has an alimentary glycosuria, and the patient who coincidentally has a true diabetes is found to be less amenable to insulin than if he did not have hyperthyroidism. When a diabetic hyperthyroid patient has the thyroid removed it takes less insulin to control the sugar than before.

Polyuria is often observed. This is attributed to two causes: (1) To increased intake of fluids due to voracious appetite; (2) to the nervousness of the patient.

Some of the urinary solids are increased such as the total nitrogen urea, uric acid and the phosphates.

The menses are irregular in time and in duration in severe cases. Sometimes menstruation ceases entirely and does not reappear until several months after thyroidectomy. It has been asserted that when a young woman's menstruation is persistently irregular it should arouse suspicion of a disordered thyroid.

Disturbances of the Central Nervous System.—One of the first manifestations of toxicity of the thyroid is nervousness. The patients become unreasonable, irritable, intolerant, impatient, apprehensive and do not sleep. Mental depression alternates with abnormal exaltation and even in rare cases acute toxic delirium may occur. Many of the cases are subject to dizziness and headaches. These patients are given to hasty speech, causeless gaiety and a rapid flow of thought, which is usually not logical. They often become untruthful and in general are not dependable. A noteworthy phenomenon is the inability of these patients to keep up any sustained mental or physical labor. They may start an activity with great enthusiasm but quickly tire of it and drop it.

The physical reactions to hyperthyroidism are analogous to the mental. Tremor of the hands and fingers is constant. The tremor is rapid and fine. Even the tongue, eyelids and lips may partake of the tremor. The muscles tire easily, even in walking upstairs.

Disturbances of Metabolism.—Hyperthyroidism is always associated with an increase in the

metabolic rate. If there is no rise in the metabolism there is no hyperthyroidism. The degree of the hyperthyroidism is almost perfectly measured by the increase in the metabolic rate.

The loss of weight is rapid because the high basal metabolic rate produces rapid tissue destruction. The weight may drop 10, 15 or 20 pounds, but often the loss of one third or even one half of the body weight is observed.

Disturbances of the Endocrine System.—I enter into a discussion of this phase of the subject without much assurance. When active study of the endocrines began, we were all enthusiastic in believing that many obscure problems would soon be made clear. The hope has not been realized. It is easy to speculate but it gets one nowhere. Almost nothing of the interrelationship of the several members of the endocrine system is really known; most is conjectural.

A few facts are well established. It has long been known that in almost any thyroid upset there is at the same time a hypertrophy of the thymus in about 15 per cent of the cases. After a diseased thyroid has been removed the hypertrophied thymus seems to revert to its original status.

In the presence of hyperthyroidism the injection of adrenalin is found to produce glycosuria; after the pathological thyroid has been removed the injection of adrenalin will no longer induce glycosuria. This does not prove much except that in health there seems to be a balance between the adrenals and the thyroid which is disturbed when the thyroid is diseased. In cases of diabetes with simultaneous toxic goiter, insulin often fails to control the sugar; after thyroidectomy the insulin produces its usual effect. This would seem to show some definite relationship between the thyroid and the islands of Langerhans. It is supposed that the injection of adrenalin or an excessive amount of thyroid secretion inhibits the function of the pancreas.

Disturbances of the Respiratory System.—Difficulty in breathing is often observed due to obstruction from pressure on the trachea or to involvement of the recurrent laryngeal nerves. In association with the difficulty of breathing there is often a tracheal catarrh which makes the voice a little rough and husky and causes patients to cough or clear the throat. The stenosis is due to more or less flattening or angulation of the trachea caused by pressure of the enlarged thyroid from each side, producing the so-called scabbard trachea or, when at different levels, an angulation of the trachea. A circular goiter is the most serious form of stenosis the trachea being completely surrounded. Nocturnal dyspnea may occur from tracheal steno-

sis and death may result, especially if accompanied by edema of the glottis.

A true emphysema may develop as the result of struggles to force air through the stenosed trachea.

One or both laryngeal nerves may be paralyzed as the result of pressure or stretching. If only one nerve is involved, it produces coughing, hoarseness of the voice and tracheal catarrh. If both recurrent nerves are paralyzed, a serious condition is likely to ensue and sometimes tracheotomy becomes necessary to avert a fatal result.

Intrathoracic goiter may produce serious respiratory symptoms from pressure directly upon the lungs.

Disturbances of the Function of the Esophagus.—Difficulty and delay in swallowing may be produced from pressure upon the esophagus. This is especially likely to occur when a large intrathoracic goiter is present.

Miscellaneous Disturbances.—Sometimes there is noted in connection with an enlarged thyroid an involvement of the entire glandular system. This may include the cervical, axillary and inguinal glands, the intestinal follicles, the lingual papillae and the tonsils. At the same time there is likely to be a great increase in the number of the small lymphocytes in the blood. This is a true polyglandular disease and it is doubtful whether the thyroid pathology is more than an incident. In hyperplasia of the thyroid the bones of the body often become more delicate than normal, the fingers tapering.

A slight secondary anemia is often noted which may be the result of the increase in metabolic rate. This anemia is by no means constant and may not result even in very severe cases. In a large proportion of the cases the coagulation time of the blood is delayed. A relative lymphocytosis is present in about half the cases.

The type of goiter that we have been discussing presents comparatively few difficulties in diagnosis. The man who assumes that recognition of all goiters is easy has not met or has failed to recognize a form of thyroid dysfunction frequently referred to as "borderline hyperthyroidism." Cases of this kind are often treated for months or years as neurotic or cardiac patients without the physician suspecting that the real trouble is located in the thyroid gland.

Hamberger and Leo, in discussing these cases, gave the following characteristics of all of them and will be found of diagnostic and clinical significance:

(1) The patients, both men and women, were beyond the middle decade of life.

(2) The usual obvious signs and symptoms of toxic goiter; namely, goiter, exophthalmos,

nervousness, tachycardia and excitability, are wanting.

(3) Many, if not all, give evidence of apathy, weakness, loss of weight, pigmentation, early fatigue and some slight staring expression of the eyes.

In addition, the diagnosis rests on a persistent increase in the basal metabolic rate, improvement or relief of symptoms and decrease in the basal metabolic rate following iodine medication and thyroidectomy and the histologic appearance of the removed glands.

In this connection, Lahey says that hyperthyroidism of the apathetic type is far less striking and much more dangerous than hyperthyroidism of the activating type. Freund and Cooksey emphasize the necessity of careful study of ailing elderly persons without definite signs of goiter for thyrotoxicosis.

Clute and Adams, discussing the so-called "borderline hyperthyroidisms," report sixty-nine cases; in all of them the first basal metabolic rate was plus 30 or less, 20 per cent of them being below the normal limit of plus 15. They emphasize that it is hard to prove these cases are victims of thyrotoxicosis and state that many of them are treated for years and by many doctors for something else; that they are bound to be invalids until the real condition is discovered and treated as true hyperthyroidism. In thirty of Clute's and Adams' sixty-nine cases, subtotal thyroidectomy was done and the result was not satisfactory in fifty-eight and eleven were not improved. It would be interesting to know if the diagnosis of these eleven cases was faulty or if other conditions were present which prevented the expected relief.

In the early work on the thyroid it was natural that the atypical, obscure and masked forms should be unrecognized; but even now, after so much intense study has been given to the thyroid, there are doubtless in the United States thousands of invalids going around from doctor to doctor with thyrotoxicosis who could be cured by thyroidectomy but whose real trouble has not been suspected. This is not so much a reflection on the medical profession as an acknowledgment of the great difficulties these obscure and misleading symptoms present.

One case may be found with a rapid heart and fibrillation and lack any other of the usual symptoms of hyperthyroidism. Another may be nervous, excitable and unreasonable and be likely to be classed as a neurotic. Still another may complain of tiring easily with a slight tremor, headache and vertigo. Others may have a slight tendency toward nervousness and a moist skin.

With such a paucity of characteristic symptoms, one would never suspect hyperthyroidism

unless he happens to be "goiter minded" and begin to apply tests. When the attending physician reaches this state of mind the case is usually soon cleared up. The results of the tests are not as striking as in the more typical toxic goiters, but they are absolutely convincing if carefully conducted.

First, a careful history with clinical observations will probably reveal many symptoms which point with more or less certainty toward a mal-functioning thyroid. A little widening of the palpebral fissure; a slight tardiness of the lid drop; in more than half the cases there is no enlargement of the thyroid but a goiter will be made out in some of the cases; the skin may be found to flush easily and there may be a tendency to sweat unduly, especially the hands, feet and axilla; the appetite may be found unexpectedly good and there may be at the same time slight loss of weight; there may be a slight tremor and even a suggestion of a staring expression; the pulse, which may be somewhat above normal, is not much affected by exercise; the blood pressure may be normal or above but there is likely to be some increase in the pulse pressure; there may be found at times a more or less mental excitation and emotionalism which seem to be unmotivated. I can imagine you thinking that if all these conditions are present, wherein lies the difficulty of making a diagnosis? The answer is that if all the symptoms described were present there would be no especial difficulty but, as a rule, only one or two or three of these symptoms are found in one individual. Symptoms are usually there but not enough of them to give the proper "hunch."

There are three further tests which will usually clinch the diagnosis: First, the basal metabolic rate, though not usually as high as in the typical case, is habitually a little above normal. There are no minus readings if hyperthyroidism is really present. The first reading may be a plus 25 or a plus 30 or even a little higher. Several basal tests should be made and if all or most of them are a little above normal it speaks in favor of a toxic thyroid.

Second, as a therapeutic test iodine or thyroid extract is valuable. If the case is one of hyperthyroidism improvement almost always follows their use within a few days.

Third, the Goetsch test has almost its sole use in these borderline cases. Six to ten minims of adrenalin hypodermically will usually so accentuate the symptoms by increase of nervousness, acceleration of the pulse, making an almost imperceptible tremor very pronounced, produce profuse perspiration and bring out excitation and emotionalism so that a case with symptoms very vague may be made for an hour

or two to present all the appearance of a typical case of thyrotoxicosis.

Almost all these borderline cases are comparatively easy to recognize after one suspects that hyperthyroidism is present. The chief difficulty has been that the symptoms are so atypical the thyroid is not considered. It is very important not to go to the opposite extreme and assume the thyroid is at fault when the entire train of symptoms is due to something else, because not all cases of obscure symptomatology are due to hyperthyroidism.

For instance, hypertension often produces a slight elevation of the basal metabolic rate which is persistent, and hypertension may produce neurotic symptoms such as pounding of the heart, tremor and a general sensation of nervousness. Heart lesions with accompanying shortness of breath, palpitation, nervousness and a sense of fatigue may lead one to suspect the thyroid. A careful auscultation of the heart will reveal the lesion, but it must also be remembered that the presence of a heart lesion does not prove there may not be a simultaneous goiter. Another important point in differentiation is that exercise affects profoundly the organic heart case while, in thyrotoxicosis, the heart is much the same while resting as exercising.

Many other conditions cause a rise in metabolic rate such as cardiorenal diseases, leukemia and late pregnancy. The neurasthenic patient will frequently show an increased basal metabolic rate at the first reading or two which will be absent in subsequent tests. This accentuates the importance of repeated basal metabolic tests. It takes so little mental or physical disturbance to elevate the rate that this precaution is necessary to avoid error in conclusions.

And, lastly, the person suffering from neurocirculatory asthenia presents a good many symptoms suggestive of a toxic thyroid, but there are some definite points of difference. These patients are pessimistic, low spirited with a general mental depression which separates them sharply from the buoyant and hopeful mental attitude of the thyrotoxicosis patient. The neurasthenic fears to be alone, fears crowds and has many needless and imaginary worries while the thyroid patients view almost everything with a hopeful attitude. To be sure, these borderline cases are sometimes apathetic, but their apathy usually alternates with periods of exaltation and extreme complacency.

Just a word as to treatment. Every case of toxic goiter should be treated by subtotal thyroidectomy. It is not an operation of expediency, but of necessity. Many of these patients will perish unless their goiters are removed. It should be regarded as a strictly sur-

gical condition. It is true that occasionally enough fibrosis develops so that a case of this type becomes self-curative but most of them will result fatally if operation is not performed.

Ellis Building.

SPECIAL ARTICLE

AUGUSTUS CHARLES BERNAYS,
A.M., M.D., M.R.C.S. (Eng.)
1854-1907

A SKETCH OF HIS LIFE

WILLARD BARTLETT, M.D.
ST. LOUIS

How rare is that combination of elements which insures success beyond the ordinary! Dr. Bernays was blessed with the distinguished inheritance of a most unusual mental equipment. He had abundant physical vigor; he was afforded every opportunity for study and finally entered a field of surgical practice in which he had thereby a distinct advantage. Possibly he was a genius as many of us thought, but it must be admitted by his most ardent admirers that the "divine spark" struck just where results seemed most likely.

Among his ancestors was a Bernays, Bishop of Calcutta; another professor of chemistry at St. Thomas' Hospital; a third built the Chatham docks; one, Isaac Bernays, was consulted by Napoleon while formulating the code that still lives. Some of these early distinguished Bernayses remained orthodox Jews, others were "getauft." The parents of our own Bernays migrated from Germany to America in 1853; a year later, October 13, 1854, he was born at Highland, Illinois. It is said that he was precocious beyond belief as well as "wild and naughty," to quote adjectives often used by his despairing father. He received his early education in private St. Louis schools and at the early age of twelve entered the preparatory department of McKendree College at Lebanon, Illinois, where his next six years, four of them in the college, were spent. His graduation thesis was on the "Darwinian Theory," a very early outcropping it seems of the interest in natural sciences which was later to distinguish him and mold his career. It is interesting, too, in view of later developments, to note that he received private instruction in drawing, sketching and painting while in college.

He entered Heidelberg at the age of eighteen where he completed the course in medicine. There he came under the dominating influence of Karl Gegenbaur, professor of anatomy, one of that early group inspired by Virchow while the peerless teacher was building his reputation at Würzburg in the early fifties. The youthful Bernays was student and later assistant of the distinguished surgeon, Gustav Simon, being the first American to receive "summa cum laude" when he finished at Heidelberg shortly after his twenty-second birthday. He then spent the winter semester of '76 with that master surgeon of them all, von Langenbeck, in Berlin and the following summer semester he remained at Vienna with Billroth whose fame had just commenced to spread. He then went over to London where he had every opportunity to observe the work of Sir Joseph Lister and other distinguished pioneers in

An abbreviated article on Augustus Charles Bernays by Dr. Willard Bartlett, Sr., was published in *Surgery, Gynecology and Obstetrics*, February, 1937. This extended article is published with the permission of *Surgery, Gynecology and Obstetrics*.

surgery of that period. While there he passed the examinations for the title of M.R.C.S. He was occasionally entertained while in London at the Huxley home where he was thrilled by the opportunity of meeting and talking with Charles Darwin, noteworthy perhaps in view of his developing interest in the natural sciences to say nothing of his budding agnosticism. A few months after his twenty-third birthday he returned to St. Louis where he entered the private practice of surgery, having spent the formative period of his life in Europe under influences which were stimulating in the highest degree because of the rapid development of principles underlying the field which was to be his own.

Several considerations must have affected him vitally at just this time; it had been only twelve years since Lister did that first operation of the antiseptic era; but a few months had elapsed since von Bergmann, whom he came to know extremely well, had introduced bichloride of mercury as more efficient than carbolic acid (nine years more were to elapse before von Bergmann's steam sterilization was to replace chemicals and initiate asepsis). He had entered Heidelberg only about thirty years after the Germans under Virchow's lead had initiated that epoch in surgery based on considerations of a pathological nature; also, he began practice toward the end of this era during which every dispensable organ except the lung had been successfully removed; all of this the product of antiseptics. Another influence which developed after he had been in practice only a few years was that of physiology as fundamental to all surgical considerations. So the stage was set for a most resourceful young man in a changing era by Virchow, Lister, von Bergmann, Koch and other pioneers of that time, all of them known to him personally. He must have felt himself to be in a measure the child of destiny, he being one of the very earliest St. Louisians—if not the first—to enter the practice of surgery in that city after enjoying a complete German medical education with which none other compared.

He left his own mark on German medical science while under Gegenbaur's influence by producing at least three pieces of research work which anatomists say are considered fundamental to our knowledge of heart, joint and thyroid development. (The dissections which made this third contribution possible were done at Heidelberg but not published until he had been in practice some ten years.) I never realized how well known he was abroad until in the middle nineties Professor Hertwig, the embryologist, said to me in Berlin, "You have certainly had a distinguished teacher in America, we consider Bernays' work on the heart and knee joint as being epoch-making." That same year I asked the masterful von Bergmann, whose clinic I was attending, if he remembered Dr. Bernays of St. Louis; his rejoinder was, "Er ist mein lieber Freund." He seems to have reached the zenith of his fame abroad at the time of the International Congress held in Berlin in 1890 where he read a paper, "Gunshot Wounds of the Abdomen," so well received that he was elected secretary of the surgical section.

He was 38 years old when I became his student, so it is my privilege to hold the mirror up to the last fifteen years only of a life that was picturesque, useful and stimulating to a superlative degree. Yearly trips to Europe had kept him in such intimate contact with current developments in surgery that he not only was working under the influence of physiology in his field but as early as 1892 was an enthusiastic prophet of wonders that have since developed along this line.

Those who knew him best in his late thirties and early forties realized that he was a trained scientist who had made noteworthy contributions to the progress

of surgery; still his rapidly spreading reputation as a surgeon of unusual promise was based largely upon his ability as a brilliant, resourceful and successful operator, the most difficult procedures being carried out without sacrifice of detail in an unbelievably short time. No local or regional anesthesia was available to warrant time-consuming operations; he used chloroform and naturally tried to cut down the dose and conserve the patient's resources by living up to the von Langenbeck inheritance from his student days when an operator had to be dexterous and a time-saver to get worth while results.

Versatility was one of his distinguishing characteristics; the onlooker and assistant gained the impression that he showed equal facility in the performance of the following, at least, which seemed to be favorites with him: The Italian nose reconstruction, resection of all three branches of the trigeminal nerve, total resection of the mandible, complete amputation of the tongue, thyroidectomy, total excision of neck glands, gastrectomy, vaginal hysterectomy, resection of knee and elbow; these were technical masterpieces performed at a period when some of them were surely not commonly done in the West to say the least. His reputation seems to have been made for those dependent upon current literature by such publications as this from the tenth year of his practice, viz.: "Gastrotomy for the Removal of Swallowed Knife; Recovery of the patient; With Illustrations."¹ Interest in him must have been vastly stimulated in June, 1888, by the publication of the first successful operation west of the Mississippi for bullet wounds of the intestine. (Its effect was certainly not lessened by the City of St. Louis voting the operator five hundred dollars for saving the life of the patient, a police officer.) He was writing upon successful pylorotomy as early as 1887, shortly after Billroth's first successful operation of the kind. He was the first in America to remove the entire stomach within a year after Schlatter's proposal of the idea. He did the first cesarian section for placenta previa in 1894 and as early as 1901 was writing upon bladder drainage previous to successful prostatectomy. These as well as numerous other equally arresting articles appeared from time to time during the eighties and nineties under the general caption, unique as the man himself, "Chips from a Surgeon's Workshop." Indeed, his most virile years were productive of actions and ideas reflecting the fertility of an imagination handed down to him along with other oriental tendencies by a long line of Jewish ancestors on his father's side; his mother was of Gentile birth.

Dr. Bernays as a teacher reached a circle that was small in comparison to that which constituted his reading public, but as such he was no less engaging than as operator or writer. He was an unconscious actor of ability; he possessed a personal magnetism—coming as he did of a race of showmen—which insured his classroom being crowded. He reflected, too, training in fundamental branches and clinical experience so vividly that the semi-entranced student seemed to think him possessed of second sight. It will be recalled that he had had private instruction in drawing at college and his lectures in anatomy were profusely illustrated by blackboard drawings in colors made with chalk in both hands at the same time. Of course, the student was profoundly impressed by such a display as he always was when this artist did plastic work, switching flaps to a perfect fit without making a preliminary mark or indulging in any but the most cursory preparatory survey.

He was an extremist always in what he did and said, so now and then an amusing inconsistency appeared; he never failed in any lecture, no matter what the subject, to decry the use of drugs in the treatment of surgical

patients but years later when we operated upon the master he seemed wholly receptive then to powerful sedatives for himself. Imagine the novelty of one lecture being punctuated by the teacher expressing his belief that no right thinking patient should submit to an operation at the hands of a man over 40, then when asked from the floor as to his own age admitting in confusion to having attained 39.

We had in our city during his best years no university medical source of authoritative opinion, hence it seemed natural for the newspapers to interview occasionally this outstanding surgeon on current happenings of absorbing medical interest. This in addition to frequent reports of his own arresting technical accomplishments, gave him a unique position in the public eye to the end that probably no physician of his time and few men in any other calling were known by name if not by sight to so many in our section of the Middle West. He was characterized by reckless optimism; he leaned a bit to the revolutionary; he detested hypocrisy; was possessed of boundless enthusiasm; was inclined to premature expression of opinion; was intolerant of commonly accepted rules of procedure; was unguarded in action and expression; was easily excitable, singularly ill-tempered and unreasonable at the least show of incompetence in one of his team; but he was equally contrite when he had cooled down and was capable of a quality of generosity which is known sometimes in those who must at times compensate for a wholly unfair estimate of another's ability or character.

The vibrant Bernays, who so intrigued people of the Middle Mississippi Valley in the eighties and nineties, was short of stature, stocky, dark, had a large head and prominent eyes, always in handsome clothes most carelessly worn, of most serious mien and day-dreaming when alone or unobserved as he thought, was most approachable, affable and genial with friends and casual acquaintances alike. His ready transition from work to play further illustrates the versatility of this brilliant man. He was fond of night life as it existed in St. Louis forty years ago; was a typical bon-vivant, knowing just where to dine well here or in any other large city; was the sort of dilettante that only a well-to-do bachelor could be; was one of our inveterate "first nighters" because of a real interest in music and the drama; was an art lover and collector as well as an artist at heart; indeed, the bachelor home which his gifted sister, Thekla, made more agreeable than a possible wife might have done looked like a small public museum, containing as it did art objects collected during many wanderings to the far corners of the world.

His chief diversion if not relaxation was found on the race track where he attended almost every "meeting" of every season as long as the excellent old St. Louis Fair Grounds track remained open under then existing laws. He maintained his own racing stable where he not only bred and trained running stock but initiated all sorts of original procedures—all to no purpose—for rapidly developing his horses and increasing their speed beyond the ordinary. These unique plans for producing winners attracted no end of ridicule among those "in the know" who characterized the nags as "also rans" both before and after almost every race. In spite of occasional large winnings one can rightly imagine that the losses incurred by this amateur "owner" practically dissipated professional earnings. This was the more readily understood by those of that period who realized that other owners, trainers, jockeys, touts and bookies invariably played him for a sucker and a backer of "sure" things; still the genial Bernays grasped the spirit of all this but, unlike most others of his kind, seems to have been tolerant through

it all and to have displayed a saving sense of humor because for several years he had his racing journals, dope sheets, etc., mailed to a mythical Mr. J. Easy. Surgery must have been in the back of his mind even on the race track since his best known horses were The Doctor, The Surgeon, and Sir Joseph Lister. Another owner who admired him named a racer "Dr. Bernays" and by the irony of Fate our sportsman won the largest bet of his life, \$5000, upon his rival's entrant while merely seeming to justify his confidence in the name. There were, however, very few lucrative incidents to punctuate this all-absorbing passion of his lighter side while this brilliant and cultured man presented the paradox of being still a boy at times.

It is inevitable that a forthcoming, warm-hearted man like the Doctor should have made and held many friends distinguished like himself; he seemed particularly impressed by contacts with certain gifted individuals while attending congresses abroad or at home and one remembers vividly his returns from these excursions with expressions of admiration for C. H. Mayo, Howard A. Kelly, Max Fürbringer (Gegenbaur's successor), Lawson Tait, Nicholas Senn, William T. Bull, Sir John Bland-Sutton, and E. Hurry Fenwick in particular; he practically idolized these men among others; they seemed to be his guiding stars.

He appeared up to the autumn of 1903 to retain his old-time vigor, and he surely remained extremely busy; then the handwriting on the wall became legible for even this buoyant optimist for after a camping expedition out West a slight stroke befell him about three and one half years before the end; still he made a rapid recovery and one of the heaviest professional winters of his life followed; then the summer of 1904 was spent in Japan. After a year more, being greatly improved, he seemed to conclude that we at home had all been wrong for in 1905 he wrote from the Alps that the "stroke-like" symptoms of two years ago seemed to be "a thing of the past"; but in January, 1906, he broke down completely and a prolonged bed rest followed during which he wrote his unique little book "The Golden Rules of Surgery," his professional publications of all sorts having by this time amounted to the unusual number of one hundred eleven. In a few months he was again strong enough to travel and he and his devoted sister made the last of their many European trips in the summer of that year, but during the following spring there came anginal symptoms of ever increasing intensity. May 17, 1907, was his last day outside the house; then while reading aloud to his sister five days later he suddenly collapsed and expired in her arms. I had the empty satisfaction of being the first from outside to reach the master after he was beyond help. Just as there had been nothing commonplace in his entire career so, too, his passing, with a ruptured aneurysm of the left ventricle, re-enacted the scene of Professor Simon's death in his own arms from a similar lesion, something to which he had often referred with prophetic foresight as it seemed to us later. He was not yet 54 but had surely crowded more of dramatic intensity and spectacular beneficence into that brief span than many are privileged to do though living much longer. The last rites, too, were out of the ordinary. To quote from his devoted sister's "Augustus Charles Bernays, a Memoir": "They were of my own devising, and in accordance with the tenets he had held firmly all through life to the edge of dissolution. In happy days of perfect health he had casually expressed the wish that friends, and not strange, hired priests, give him the last salute. And so, amidst a great concourse of those to whom the name and the form of A. C. Bernays had been the synonym of high scientific and humanitarian ideals, F. W. Lehmann, jurist, and Dr. Carl

Barck, physician, loyal friends of long standing, spoke of his life and of his service with the sincerity and the simplicity that were befitting. Then his body was committed to the flames."

He was an ardent admirer of Col. Robert Ingersoll whom he had known personally and whose belief he shared to the end, so immortality, if he ever gave it a thought, must for him have meant the propagation of himself through that youthful group in whom his pride was centered—the Bernays school of surgeons; indeed he did leaving unfinished an account of his pioneer experiences in surgery dedicated to a list of thirty-five former assistants to whom he had striven to hand on the torch.

We of a younger generation could not know how high to rank the master while alive until we later had opportunity to compare him with many eminent surgeons who have come and gone during the thirty years that have passed since his death. I believe there is not one of us who does not now feel that his name will always stand very close to the top among the select few of any calling who once did certain things superlatively well; surely this will be true as long as the record of St. Louis and its outstanding citizens shall be read.

The following letter nearly thirty-two years old was rediscovered by the author of the above sketch only a few days before its publication. It will be of interest as expressing Dr. Bernays' convictions of long ago that the Ochsner expectant plan would be in many instances misunderstood and many fatalities result in consequence. Dr. Bernays' practice was just that of today; he removed every appendix as soon as the diagnosis was made provided the patient still seemed able to endure the operation.

St. Louis, Mo.,
April 26th, 1905.

Dear Dr. Bartlett:

Thanks for your complimentary note. It will be filed with numerous others received during the last two months. Nearly every appendicitis surgeon in the U. S. and Europe is represented. Some letters are amusing, e. g., those from Joe Price, Deaver, and Morris-Lydston also indulges in much fun at Ochsner's expense. Senn and other serious, scientific-minded men simply agree with my views.

Ochsner himself has written me that he knows and feels that we both are interested in reducing the mortality and finds that my opposition to his Theses is altogether "parliamentary." By the way, in his first publications in favor of the expectant plan he uses and recommends opium as a routine measure; in the last communication of his thesis to the Michigan State Med. Society he has given up the opium and retains merely the other features, lavage (gastric), rectal nutrition, starvation, etc., still strongly condemning enemata and purgatives.

While of course I recognized the practical importance of my paper, I was quite surprised at the hubbub it has made. They are discussing this question in Berlin while I am writing to you. I wonder which way they will lean? If you would review the article I would be pleased.

Yours,
A. C. BERNAYS.

P. S.—In my article I forgot to go into the subject of adhesions and their relation to perforation in appendicitis. I could have strengthened my position very much had I done so. The general practitioner knows little about this matter. A. C. B.

University Club Building.

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PHENOBARBITAL CONTRAINDICATED IN PARKINSONISM

Eugene Ziskind and Esther Somerfeld Ziskind, Los Angeles (Journal A. M. A., July 3, 1937), state that by error in December, 1935, a patient suffering with chronic encephalitic parkinsonism was given phenobarbital $1\frac{1}{2}$ grains (0.1 Gm.) three times a day instead of his usual scopolamine hydrobromide therapy. Within four days he became bed-ridden with rigidity so

marked that the body could be moved as if made of one block. This extreme rigidity disappeared very rapidly when the phenobarbital was discontinued, the condition returning to its previous state. Recently they saw another patient with the same illness who, as a result of phenobarbital therapy, had a marked aggravation of her rigidity, which receded on removal of the drug. In addition, they have administered this drug in three other cases of parkinsonism for the purpose of observing the effect on rigidity. Their reports demonstrate the inadvisability of using phenobarbital in patients with Parkinson's disease. If phenobarbital has a specific effect on the mechanism of plastic rigidity and not on the other types of rigidity, there may be a diagnostic aid for isolating the early Parkinson cases. Likewise, from a therapeutic standpoint the question arises as to whether or not physiologic antidiates for the barbiturates may not have a salutary influence in the treatment of this type of rigidity. Studies with regard to these factors are now in progress.

LEUKOCYTE BEHAVIOR DURING GASTRIC ANALYSIS: CRITICAL STUDY OF "LEUKOPENIC INDEX"

Charles-Francis Long, Philadelphia (Journal A. M. A., July 3, 1937), studied the leukocyte behavior during 100 consecutive gastric analyses, with no preconceived bias, with no limitation as to type of case considered or its pathologic classification, but simply with a view to the occurrence of leukopenia and its possible relationship to various acid values. He performed 113 fractional gastric analyses with 678 simultaneous complete leukocyte and differential counts, one at each fractional withdrawal. Of the 100 patients, thirteen showed achlorhydria, twelve showed hypochlorhydria, thirty-five showed euechlorhydria and forty showed hyperchlorhydria. Since the differential counts did not vary significantly from one period to another, thereby giving no diagnostic information, they were discarded. Seventy-eight of the total leukocyte curves, or 69 per cent, fell into the indeterminate (fifty-one) and compatible (twenty-seven) groups, which percentage held true as a general rule in all four groups of acid curves. This, by the criteria of Rinkel, leads to the inference that seven out of ten patients complaining of gastro-intestinal symptoms do not have evidence of allergy to the Ewald test food. But when one looks to the three out of ten who showed incompatible curves in this study, one fact becomes promptly apparent. As one proceeds from the achlorhydric through the hypochlorhydric and euechlorhydric groups on up to the hyperchlorhydric, one finds an ascending percentage of incompatible curves: achlorhydria 18 per cent, hypochlorhydria 25 per cent, euechlorhydria 33 per cent and hyperchlorhydria 38 per cent. This, then, is the only relationship the author could discover between leukopenia and the acid value, and it seems to be the exact opposite of that promulgated by Gay. If one follows the criteria of Rinkel, one must believe from the figures presented that one out of four hypochlorhydric patients, one out of three of those with normal acid values and two out of five hyperchlorhydric patients are allergic to the bread in the Ewald test meal. In view of the individual variations that have been detailed, this cannot be accepted as true or constant but merely a variation in the blood of that patient at the particular time the test was carried out. So believing, one can continue to use the Ewald test meal as a routine in gastric study.

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AUGUST, 1937

EDITORIALS

MEETING OF THE COUNCIL

The Council of the Missouri State Medical Association met July 14 at the Melbourne Hotel, St. Louis. Dr. M. Pinson Neal, Columbia, Chairman, presided. In attendance were Drs. A. S. Bristow, Princeton; Curtis H. Lohr, St. Louis; R. B. Denny, Creve Coeur; A. J. Campbell, Sedalia; E. P. Heller, Kansas City; H. L. Kerr, Crane; W. H. Breuer, St. James; A. H. Marshall, Charleston; Dudley S. Conley, Columbia, President; B. W. Hays, Jackson, President-Elect; E. J. Goodwin, St. Louis, Secretary-Editor, and Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary.

In view of the divergence of opinion at the Cape Girardeau Session of the House of Delegates concerning the legality of changes made in the composition of the Council, the Chairman informed the Council that he had discussed this question with officials of the American Medical Association who advised that an attorney be invited to give an opinion on the question. Dr. Neal informed the Council that he had sought this opinion from Judge Fred L. English, our attorney, and that Judge English ruled that the redistricting was valid.

At the request of the Chairman Dr. Goodwin pointed out the various sections of the Constitution and By-Laws referring to the Council and Councilors and reviewed briefly the duties of the Council.

Drs. W. H. Breuer and M. Pinson Neal, Delegates to the Atlantic City Session of the American Medical Association, discussed matters brought out at that Session, among these the address of United States Senator J. Hamilton Lewis of Illinois, which was published in the June 26 issue of the *Journal* of the American Medical Association, and the recommendations on contraceptives, which were published in the

July issue of our State Association *JOURNAL* (page 244).

The Council went on record as being opposed to state medicine in any form and ordered that the Board of Trustees of the American Medical Association be informed of this action. The talk by Senator Lewis had caused confusion as to the status of the probability of state medicine and its relationship to the Social Security Act. It was brought out in the Council session that state medicine was not a part of the Social Security Act at present but that there was a possibility of such a clause being introduced in the Congress, although such action had not been taken as yet. Since the subject had been brought directly before the Session of the American Medical Association and since the American Medical Association is at present studying the probable outcome of the situation some members of the Council debated whether it would be wise to await the conclusions of the American Medical Association before taking any action. It was decided, however, that the stand of the Missouri State Medical Association should be made clear without delay and the motion opposing state medicine in any form carried.

The resolutions defining the relation of the family physician to the school child as adopted by the House of Delegates of the American Medical Association were read and discussed. There having been no official transmission of these resolutions to the Missouri State Medical Association no action was taken by the Council. The resolutions follow:

WHEREAS, The family physician has labored for these many years without full recognition of his valuable services; and

WHEREAS, The various school systems of the United States depend on the family doctor for the prevention and diagnosis of disease and the protection of the public; therefore be it

Resolved, That the school boards and authorities in charge of the school systems all over our country be respectively requested to enter and file on the index card of every school child the name and address of the chosen family doctor; and be it further

Resolved, That the designated family doctor, together with the parents or guardians of the child, be informed by the proper school authorities of any accident or illness that may befall the child in the schools of this country; and be it further

Resolved, That it be recommended that all records of health examinations accompany the scholastic record of the child as he passes from grade to grade; and be it further

Resolved, That the provisions of these resolutions be brought to the attention of the secretary of each state medical association and that he, in turn, inform the secretary of each county medical society.

Dr. Conley announced appointments on the Committee for the Study of the Control of Syphilis as follows: Dr. G. V. Stryker, St. Louis, Chairman; Dr. Charles C. Dennie, Kan-

sas City; Dr. W. S. Sewell, Springfield; Dr. Quitman U. Newell, St. Louis, and Dr. C. T. Ryland, Lexington.

Dr. Carl F. Vohs, St. Louis, Chairman of the Committee on Medical Economics; Dr. Ralph R. Wilson, Kansas City, Chairman of the Committee on Maternal Welfare, and Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary, were designated to cooperate with the State Board of Health to make a survey of medical facilities available in rural areas.

Dr. Borden S. Veeder and Dr. Maurice J. Lonsway, St. Louis, were appointed as advisory members of the Committee on Maternal Welfare.

The appointments were approved by the Council.

The Secretary read a letter from the Commissioner of Internal Revenue, Washington, D. C., ruling that the Missouri State Medical Association is exempt from taxation under the Social Security Act. The commissioner further ruled that the Missouri State Medical Association is exempt from payment of income taxes.

The Secretary presented a letter from Dr. Edward J. Helbing, secretary of the Medico-Legal Committee of the St. Louis Medical Society, requesting the State Association to contribute to the medico-legal fund of the St. Louis Medical Society, the purpose of the fund being to defray the expenses of proceedings toward the goal of a decision by the supreme court of Missouri upon the legality of the corporate practice of medicine. On motion the Committee on Medical-Legal Affairs of the State Association was instructed to act as a fact-finding body to study the problem, including conference with the committee of the St. Louis Medical Society, and report to the Council at the November meeting.

A letter from the Woman's Auxiliary was read expressing their appreciation of the assistance and helpful cooperation of the Association during the last year.

Resolutions on the death of Dr. M. P. Overholser, Harrisonville, were adopted.

The Secretary was instructed to invite to any Council meeting the chairman of any committee or any member who has any special problem to present to the Council.

Annual Councilor District meetings to which all officers of the Association would be invited were discussed. Several Councilors reported that plans for such meetings are now contemplated and that their plans were meeting with a hearty response in their districts and that excellent meetings were expected.

Attention was called to Chapter IX, Section 10, of the By-Laws in which secretaries of county societies are instructed to notify their

Councilor of society meetings. The Secretary was instructed to call this to the attention of county society secretaries.

Dr. Harry F. Parker, State Health Commissioner, presented a brief talk outlining the various problems confronting the State Board of Health.

Councilors were made associate editors and the Editor was instructed to publish under the name of the Councilor material which the Councilor may wish to have appear in *THE JOURNAL* concerning affairs in his district.

The Committee to Study the Medical Practice Act was asked to report on some phases of its work at the November meeting of the Council.

Dr. A. J. Campbell, Sedalia, discussed the plan of medical care for clients of the Resettlement Administration.

A Committee on Membership was appointed as follows: Drs. R. B. Denny, Creve Coeur, Chairman; A. H. Marshall, Charleston; A. S. Bristow, Princeton; H. L. Kerr, Crane, and H. B. Goodrich, Hannibal.

Authority was granted the Committee on Scientific Work to invite guest speakers for the Jefferson City Session.

The General Committee on Arrangements for the Jefferson City Session was appointed as follows: Dr. W. H. Breuer, St. James, Chairman; Dr. A. J. Campbell, Sedalia, and Dr. Curtis H. Lohr, St. Louis. The Committee was authorized to select the dates for the 1938 Session.

Dr. E. J. Goodwin, St. Louis, was elected Secretary-Editor, and Dr. John R. Caulk, St. Louis, was elected Treasurer. On recommendation of Dr. Goodwin the appointment of Mr. E. H. Bartelsmeyer, St. Louis, as Assistant Secretary and Business Manager of *THE JOURNAL* was approved.

FOOD SELECTION

One of the more interesting scientific exhibits at the 1937 Atlantic City Session of the American Medical Association was that of Dr. Curt Richter of the Phipps Institute of Baltimore entitled "The Glandular Control of Appetite for Minerals." Richter studied the response of rats to a variety of food mixtures after various types of glandular deficiencies had been experimentally produced in them. The caged animals had access to several mixtures, each containing different mineral elements. Adrenalectomized animals displayed a decided preference for those mixtures containing an abundance of sodium chloride. They were then offered mixtures containing either the sodium or the chloride ion in excess, for example, sodium lactate, calcium chloride, etc. Invariably they took more

of the sodium ions, less of the chloride ions. This response is in keeping with recent investigations upon patients with Addison's disease who are benefited by diets containing large amounts of sodium. These rats chose a slight excess of potassium, a chemical which functionally depresses the human patient with adrenal deficiency.

Rats from which the parathyroid glands had been removed displayed a preference for those mixtures containing large amounts of calcium; undoubtedly instinct served them well. When thyroidectomized animals were fed thyroid substance they voluntarily increased their intake of iodine from the variety of mineral combinations offered them. This may have been a manifestation of iodine want in the remaining thyroid tissue. In goitrous districts dogs show almost the same incidence of goiter as do human beings; perhaps instinct is not the same in them as in the rat; perhaps there are not available iodine stores on which they may draw. For an unexplained reason the rats increased their sodium intake during pregnancy.

We have always been impressed with the instinctive ability of animals to choose their food in accordance with their metabolic requirement. Hens, offered freely available lime produce eggs having shells of remarkably uniform texture. In the same way these hens ingest amounts of charcoal (presumably to keep the intestinal tract clean) in keeping with their metabolic requirements. The long treks which wild animals make for salt are too well known to require comment.

Unfortunately there is in the human being no counterpart of the mechanism which causes animals to eat in accordance with an internal demand for the essential nutrients. Infants, out of the perversity which characterizes the human animal, eat the lead paint which covers crib or toys; even the extreme disruption of the hematopoietic system so induced is not sufficient to break the bad habit. No scientific experiment has so far explained the bizarre menu demanded by some pregnant women. Instinct does not serve as a guide to the best diet for the allergic individual. Food antipathies are not usually amenable to scientific explanation.

Vaughn and Pipes¹ attempted to find a correlation between food dislikes and food allergy in five hundred persons. Careful histories combined with skin sensitivity studies supplied the data. In general they found no relationship between food dislikes and allergic manifestations. In the case of gastro-intestinal symptoms, however, the relation existing between a disliked food and the early onset of allergy may

be recognized by the patient. Vaughn and Pipes conclude that in 80 per cent of individuals there is no correlation between food dislikes and the offending allergens. In the remaining fifth there is such a correlation for one food, but even these patients often express dislike for several foods shown to be nonallergenic. Food dislikes may develop as acquired characteristics, the result of long association with a parent who has a similar dislike, or they may result from some unpleasant emotional experience connected with the particular food, or from organic disease which interferes with the normal utilization of the food.

The implication of these studies is clear. Patients must not be allowed to be the sole judges of their dietaries. Lacking the instinct of animals and subject to human prejudices they must be educated to ingest a wide variety of food-stuffs that all the nutrients essential to health are supplied their bodies. In general there is such a wide choice of individual foods that it should be an easy matter for the physician gradually to overcome those prejudices which may jeopardize health because they force the patient to live on an inadequate diet. Even in the presence of allergy the diet must be so planned, even supplemented, that deficiency diseases do not develop from the imposed dietary limitations.

FALL CLINICAL CONFERENCE OF THE KANSAS CITY SOUTHWEST CLINICAL SOCIETY

A most interesting and instructive program for the Fall Clinical Conference of the Kansas City Southwest Clinical Society to be held in Kansas City, October 4 to 7, is nearing completion. The four afternoon sessions will be devoted entirely to presentations by guest speakers, some of whom will also participate in the programs of the two sections to be presented each morning by members of the society.

Two sectional sessions will be held each entire morning which will include discussions of medicine, industrial surgery, obstetrics and gynecology, pediatrics, syphilis, urology, surgery and proctology. Speakers for discussions have been particularly chosen by the program committee for each lecture and an excellent program can be expected.

Guest speakers for the conference include Dr. Alfred E. Barclay, Oxford, England; Sir George Lenthal Cheatle, London, England; Dr. R. B. Cattell, Boston; Dr. Frederick A. Coller, Ann Arbor; Dr. Wm. D. Gill, San Antonio; Dr. Arnold Jackson, Madison; Drs. Richard H. Jaffé, Herman L. Kretschmer and Paul B. Magnuson, Chicago; Dr. G. D. Royston and Father A. M. Schwitalla, St. Louis; Dr. Ferris

1. Vaughn, W. T., and Pipes, D. M.: Is There a Correlation Between Food Dislikes and Food Allergy? *J. Allergy* 8:257, 1937.

Smith, Grand Rapids; Dr. Fred M. Smith, Iowa City; Dr. Robert A. Strong, New Orleans; Dr. O. H. Wangenstein, Minneapolis, and Dr. Bernard L. Wyatt, Tucson.

The Fall Conference promises to be the most attractive in the history of the society and warrants a full attendance.

MISSOURI PHARMACY LAWS IMPROVED

Pharmacy is so closely associated with the practice of medicine that a better pharmacy law in Missouri is of importance to the medical profession. The committee substitute for H. B. No. 265 which was passed by the General Assembly this spring considerably improves the laws on pharmacy by raising the standards in that field. The original bill did little to improve the previous laws and the medical profession concerned itself in the bill. In this connection the St. Louis Medical Society adopted the following resolutions:

WHEREAS, The present law in the State of Missouri for the licensing of pharmacists has been considered inadequate for some time for the safeguarding of public welfare, and

WHEREAS, House Bill No. 265 now pending before the Missouri State Legislature aggravates the present evils in that it permits the licensing of applicants with a grade school education and ten years apprenticeship in a drug store without an examination, merely upon application to the State Board of Pharmacy and the payment of a fee, and

WHEREAS, The medical profession is closely associated with the practice of pharmacy in the treatment of the sick and in safeguarding of public welfare, and

WHEREAS, We believe that the adequate protection of public welfare demands that the absolute minimum requirement for a licensed pharmacist should be a high school education and successful graduation from an accredited school of pharmacy; therefore be it

Resolved, That the St. Louis Medical Society believes that the proposed bill for the licensing of pharmacists in its present form is detrimental to the best interests of the public and urgently recommends the defeat of the proposed bill in its present form and that a substitute bill be enacted eliminating the objectionable features of House Bill No. 265, thereby raising the requirements for the licensure of pharmacists in the State of Missouri; and be it further

Resolved, That a copy of these resolutions be sent to the Governor of the State of Missouri and the Senators and Representatives from St. Louis, Missouri, the Missouri State Medical Association and the daily press.

The committee substitute bill which was passed leaves the required age at 21 years but adds a preliminary educational requirement of four years of high school work, one year experience, graduation from a school or college of pharmacy approved by the Board of Pharmacy and passing of an examination. The former requirements were four years' experience under a registered pharmacist and "sufficient preliminary education." If the applicant was a graduate of a school of pharmacy he was not re-

quired to pass an examination. A license for assistant pharmacist was formerly issued on two years' experience under a registered pharmacist. Assistant pharmacists will no longer be licensed.

Fees for licensure by the new act are \$15 for licensed pharmacists instead of the former \$10; \$2 for renewing of license in place of \$1 and the fee for issuing a permit "to any person who has had one year's experience under the supervision of a registered pharmacist to conduct a drug store in village of not more than five hundred inhabitants" remains \$5.

Under the new act the salary of the secretary is \$200 and traveling expense; that of the assistant secretary is \$150 and traveling expense. These salaries were formerly left to the discretion of the board. Board members are allowed \$10 for each day actually employed in official work.

NEW MEDICAL JOURNALS

The profession is surfeited with medical journals ranging in circulation from a few hundred to nearly a hundred thousand, some confined to highly specialized fields in which only the few are interested, others devoted to the entire gamut of medicine. More recently medical literature has been invaded by give away magazines, aping in form and context some of their popular prototypes in the general fields of current literature and information. Such little journals are supported by advertising income derived from the sponsors of products not acceptable to the American Medical Association and its affiliated journals. Yet, the general tone of some of these publications is excellent, their articles well-chosen, their literary standards high.

The accumulation of medical literature is so great that it is obviously beyond the scope of one physician to keep up with the entire output. The practicing physician who endeavors to do so is forced to cull from the crop those articles which either present the new or review the old so ably that he can spend his reading minutes to good advantage. The give away journals endeavor to supply this need; yet their very character causes them to lack authority. In general it may be said that new therapeutic procedures of great significance, for example, protamine insulin and sulfanilimide, quickly find their way into the general practitioner's armamentarium. But there are a host of the new therapies less startling in their effect which only laggardly reach the profession. Similarly, there are new diagnostic methods, some of them easily applicable to office routine, which do not reach the general practitioner quickly. For these reasons a new type of medical journal, devoted to the

presentation of brief, authoritative articles, either reviewing the old or evaluating the new, might fill a long felt need.

The *Digest of Treatment*, a new monthly magazine which first appeared under the sponsorship of the J. B. Lippincott Company (Philadelphia), does not fill the want for a new type of medical journal. It is undoubtedly authoritative but we doubt that the general practitioner will glean much from its perusal. For example, the first issue contains seven articles dealing with protamine insulin, all presented as condensations of original articles appearing in various American and English journals. It would seem to us that a single practical article in which these and other reports might be mentioned, so presented as to outline clearly the indications and technic for the use of protamine insulin might better fulfill the requirement of the general practitioner; but we believe the standard of medical practice is most likely to be advanced by bringing him authoritative epitomes of current thought in order that he may continue his education. We doubt the ultimate good that will accrue from offering him condensations of current literature. We cannot escape the conviction that the single leaflet published monthly by the National Tuberculosis Society, each issue devoted only to a single phase of the subject, will go further toward the control of the disease than any number of articles published in any number of medical journals. We hope the editors of *Digest of Treatment* will gradually add to their well conceived journal those elements that will make for widespread usefulness to the general practitioner that the standard of medical practice may be advanced.

The C. V. Mosby Company (St. Louis) have recently added to their list of journals a new one, first appearing in January, 1937, and entitled *Surgery*. It will undoubtedly fill the need for a publication in this field which is peculiarly representative of the Middle West and in which young surgeons may find a vent for their writing and their research. Dr. W. J. Mayo who writes a foreword to the first number suggests that it is the writer rather than the reader who profits most from an original contribution. We join with him in welcoming this new publication to the medical field. Mosby management insures a well edited authoritative journal, adapted to its special field and serving well to advance the knowledge and art of surgery.

MOTOR VEHICLE ACCIDENTS

Motor vehicle accidents are the principal cause of fatal accident in the age group of 5 to 64 in the United States. On the present basis of statistics one out of every twenty persons will be injured or killed in a motor vehicle accident

within the next five years. The Committee to Study Problems of Motor Vehicle Accidents of the American Medical Association went even farther in its report at the Atlantic City Session and prophesied that unless drastic measures are instituted, two out of every three children now living will be injured in a motor vehicle accident in his lifetime.

This committee, appointed at the Kansas City Session, reported on the study of this problem from many angles. It was the belief of the committee and of the reference committee to which the report was referred that the question is far more a legal question than a medical one. They offer, as proof of this, statistics showing that in states having adequate driver's license laws, over a period of nine years, deaths from vehicle accidents have decreased 20 per cent while in all states having inadequate laws the deaths have increased, in some more than 30 per cent.

While the physical and mental defective is responsible for but a small proportion of accidents, an adequate driver's license law would give the state some control over these drivers. This is probably the only group of accident perpetrators in whom the physician may be interested more than the average citizen; and this interest can only be acted upon by the physician when individuals of the group happen to be his patients. Only legal measures can give control over this group. The Committee feels that with an adequate driver's license law persons having records as bad drivers would be examined for physical, mental and psychological abnormalities and corrective measures instituted or if correction is impossible licenses be revoked.

The Committee concluded that, in addition to a driver's license law, lay education is needed on the importance in motor accidents of physical and mental defects, fatigue, ill health, disturbed vision or hearing, the effects of drugs, carbon monoxide, alcohol and the like.

The Committee congratulated the American Red Cross for the establishment of highway first aid stations and expressed the opinion that these stations were not only life saving measures but were means of making drivers conscious of the danger of carelessness.

The conclusion of the Committee's report seems to be that the remedial work will have to be legislative and that, with laws as they are at present in most states, palliative measures are all that can be offered.

In Missouri the Red Cross has established a number of first aid stations. Missouri has taken a progressive step by training all personnel of the State Highway Patrol in first aid and all members of the Highway Department who are in charge of maintenance on the highways are receiving such instruction.

NEWS NOTES

Dr. Clifton Smith, formerly of the staff of the State Hospital at St. Joseph, assumed his duties as superintendent of the St. Louis Training School on July 1. He succeeds Dr. George A. Johns who resigned to accept a position in Baltimore. Dr. Smith was on the staff of the State Hospital at St. Joseph for six years. Last year he did postgraduate work at the Cook County Hospital, Chicago.

The American Board of Obstetrics and Gynecology will hold its next written examination and review of case histories for group B applicants in various cities of the United States and Canada on November 6. Applications must be in the secretary's office sixty days prior to the date of the examination. Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania, is secretary.

The fifth International Congress of Radiology will convene in Chicago, September 13 to 17. It will be the first time the congress has met in America. Meetings are held every three years. The first congress convened in London in 1925; the meeting was held in Stockholm in 1928, in Paris in 1931 and in Zurich in 1934. The annual conventions of the American Roentgen Society, the American College of Radiology, the Radiological Society of North America and the American Radium Society will be merged with the international congress. Leaders in other branches of medicine will participate in the congress. Approximately 500 delegates and guests from a score of European countries as well as physicians from Mexico, Canada and Central and South America are expected to attend in addition to 2000 delegates and visitors from the United States. Two hundred fifty scientific papers will be presented in each lecturer's own language and will be automatically flashed on screens in English, German and French as the papers are read. Dr. Benjamin H. Orndoff, 2561 North Clark Street, Chicago, is general secretary of the congress.

The Mississippi Valley Medical Society has recently established a number of annual awards. To encourage recent medical graduates to become interested promptly in postgraduate study, the society will award five free two year memberships each year to recent licensed graduates from each of the recognized medical schools of Illinois, Missouri and Iowa, the deans of the respective schools to make the selections on the basis of scholarship. A silver and bronze medal will be awarded each year for the most interest-

ing scientific exhibits at the annual meeting. A cash prize of \$100 and a gold medal will be awarded annually for the most interesting contribution on a subject to be determined by the annual awards committee.

Dr. George A. Johns, formerly superintendent of the St. Louis Training School, St. Louis County, began his duties as superintendent of the Rosewood State Training School, Baltimore, Maryland, on July 1. Dr. Johns had been in psychiatric work in Missouri for more than twenty-five years. He began his career as assistant resident physician of the City Sanitarium, St. Louis, and later served as superintendent of that institution. He had been superintendent of the State Hospital at St. Joseph and of the one at Nevada and had served as State Health Supervisor.

Four members from Kansas City were guest speakers on the program of the midsummer radiological conference of the Denver Radiological Club held in Denver, July 15 to 17. Those appearing on the program and their titles were: Drs. Frederick C. Narr, "Pathology of the Breast"; Ira H. Lockwood, "The Roentgen Examination of the Breast"; James E. Stowers, "Benign Lesions of the Breast," and Claude J. Hunt, "The Surgical Treatment of Carcinoma of the Breast."

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Burbot Liver Products Co.

Rowell's Burbot Liver Oil

Eli Lilly & Co.

Combined Diphtheria Tetanus Toxoid, Alum Precipitated

Tablets Carbarsone 0.05 Gm. ($\frac{3}{4}$ grain)

Tablets Carbarsone 0.25 Gm. ($3\frac{3}{4}$ grains)

Suppositories Carbarsone, 2 grains.

Wm. S. Merrell Co.

Cod Liver Oil Concentrate Tablets—Merrell Sharp & Dohme, Inc.

Staphylococcus Toxoid—Mulford

Winthrop Chemical Co., Inc.

Avertin with Amylene Hydrate

The confessed slayer of Dr. J. C. B. Davis, Willow Springs, was sentenced to death after a trial at Alton, Missouri, closing July 22. The 23 year old slayer, Robert Kenyon, did not take the stand in his own defense of the killing of Dr. Davis on January 29, 1937. The date of execution was not fixed at the time of the sentence.

Plans for the new \$1,290,000 Marine Hospital to be erected in Kirkwood have been made public and, according to a government release, bids for construction will be solicited after drawings and specifications are completed. The project will consist of ten buildings in red brick trimmed in limestone and will replace the present Marine Hospital in South St. Louis.

Dr. Ellis Fischel, St. Louis, Chairman of the Committee on Cancer of the Association, was appointed by the Governor on June 25 as chairman of the four member commission which will supervise construction and operation of the State Cancer Hospital. The hospital was authorized at the last General Assembly. The other members of the commission have not been named. The bill becomes effective September 6.

Schedule of the Refresher Courses in Obstetrics and Pediatrics that are being given at present is as follows:

PEDIATRICS

Jefferson, Perry and Ste. Genevieve counties in the office of Dr. C. E. Fallet, DeSoto, at 8 p. m. on Mondays, July 26, August 2, 9 and 16; at Perryville on August 23, 30, September 6, 13.

Cape Girardeau, Scott, Mississippi and Bolinger counties at the Colonial Tavern, Cape Girardeau, on Tuesdays, July 27, August 3, 10, 17, 24, 31, September 7, 14.

Dunklin, Pemiscot and New Madrid counties at the Court House, Caruthersville, on Wednesdays, July 28, August 11, 25, September 8; at Masonic Hall, Kennett, August 4, 18, September 1, 15.

Wayne, Butler, Stoddard, Carter, Shannon and Ripley counties at Hotel Dunn, Poplar Bluff, on Thursdays, July 29, August 5, 12, 19, 26, September 2, 9, 16.

Reynolds, Iron, St. Francois, Madison and Washington counties at the Court House, Farmington, on Fridays, July 30, August 6, 13, 20, 27, September 3, 10, 17.

OBSTETRICS

Platte, Clinton, Clay and Ray counties at Hotel Snapp, Excelsior Springs, on Mondays, July 26, August 2, 9, 23, 30, September 6, 13, 20.

Atchison, Andrew, Nodaway and Holt counties at the St. Francis Hospital, Maryville, on Tuesdays, July 27, August 3, 10, 24, 31, September 7, 14, 21.

DeKalb, Harrison, Gentry and Worth counties at the office of Dr. W. A. Broyles, Bethany, on Wednesdays, July 28, August 4, 11, 25, September 1, 8, 15, 22.

Grundy, Daviess, Mercer and Putnam counties at the Public Library, Trenton, on Thursdays, July 29, August 5, 12, 26, September 2, 9, 16, 23.

Caldwell, Livingston, Carroll, Chariton and Linn counties at the City Hall, Chillicothe, on Fridays, July 30, August 6, 13, 27, September 3, 10, 17, 24.

MISCELLANY

GONORRHEA

The Missouri Social Hygiene Association is preparing a series of articles on various phases of gonorrhea. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are reprinted that the members throughout the state may have the opportunity of reading them.

The Gonorrhea Problem and the Doctor

Syphilis is at last coming into its logical and scientific place in the minds of the physician, the public health official and even the laity. In spite of age-old taboo, its magnitude and importance in human life and happiness have finally forced it into the open to take its place among the other infectious diseases which afflict mankind. Its control and cure rest upon a sound therapeutic basis and its eradication is an achievement which is possible to envisage.

Gonorrhea presents a much more depressing picture. Its enormous prevalence and the terrible and tragic costs which it entails give it a leading place among the afflictions of humanity. It is not a great cause of death, as is syphilis, but the damage it does the race is inflicted mainly through its power to injure and incapacitate the reproductive organs of both sexes. Syphilis has been called "The Great Killer" and gonorrhea "The Great Sterilizer." It is less spectacular and dramatic than syphilis and lacks the reliable specific therapeutic measures which make the treatment of syphilis a satisfaction. Dogged persistence on the part of the doctor and a liberal share of knowledge as to what not to do as well as what to do, with cooperation from the patient which is often difficult to keep, constitute the essentials of the medical management. A big percentage of patients with gonorrhea as well as with syphilis see the family doctor at least for diagnosis and first treatment, so that the largest burden of its treatment and control rests upon the shoulders of the general practitioner.

One noteworthy advance in the effort to place the management of gonorrhea upon a thoroughly scientific basis was the recent organization of the American Neisserian Society. Its committee for a survey of research on gonococcus and gonorrheal infections has completed and published its report. This report not only summarizes in a masterly way the work that has been done in recent years, but points to an almost endless trail of new research work to obliterate the confusion of the old.

At the second annual meeting held last May, the president of the new society, Dr. Pelouze, stated that it is highly important that reliable statistics be gathered depicting disease duration and a complication incidence under the plans of treatment now in use. Such statistics are important as a background for the evaluation of the drugs used in the treatment of gonorrhea.

He stated that probably the greatest need of the day, aside from something new that quickly, surely and safely cures gonorrhea, is the development of a plan that approaches a standard form of treatment. Such a plan should be based upon knowledge of what is safe, sane and efficient. Above all it must be something which the average physician can use and must require a minimum of equipment.

Dr. Pelouze also said that in the field of therapeutics today, we are faced with a mounting number of preparations for which the highest claims are being made by manufacturers and, at times, by members of the medical profession. Often these claims are based upon little more than personal opinion. Frequently they are founded upon clinical investigation which, when carefully studied, shows little to support the conclusions reached. Starting upon such a faulty under-structure, these drugs are immediately caught up by the commercial urge and exploited to the ends of the world. They are used by thousands of doctors who see so little of the disease as to make their reports to the questionnaires sent them by the manufacturers, data of the most unfortunate type. One object of the Neisserian Society is a battle against such professional and lay exploitation. Its data and the results of its research will be frequently used in the succeeding articles on the management of gonorrhea.

The Diagnosis of Gonorrhea (General)

Most textbooks on gonorrheal infections insist that the diagnosis of gonorrhea must not be made unless "organisms which resemble the gonococcus" are found. (That argument has its origin in a peculiar mixture of morals with medicine.) The point of view which has fostered that argument assumes that those who have gonorrhea are all morally delinquent and that they more or less deserve their infections. It has produced a medical mind which shies away from a diagnosis of gonorrhea as it would from the direct statement that the patient has been guilty of a serious moral offense. It has been directly responsible for the deplorable neglect of this disease by a medical profession which, like the public, has been able to see only the antisocial behavior. It has led to the open ridicule of those of its ethical members who have had the courage to specialize in the treatment of gonorrhea. It has been an effective obstacle to the control of this disease. It is the opinion of the Neisserian Society that until that point of view and that argument are discarded little progress will be made. They are incompatible with the practice of preventive medicine.

It is not the purpose of the society to minimize in any way the importance of laboratory evidence which may help to support a clinical diagnosis, but there is nothing in the law, nor in medical or moral ethics, which denies a physician the right to a conclusion based upon the best evidence available. Diagnosis is more often an art than a science. It is the art of arriving at a decision; of discriminating between diseases and distinguishing between them by their characteristic signs and symptoms. It is unusual to find all of the signs and symptoms of a disease in a single patient. There is wide variation between the same signs and symptoms in different patients. Laboratory confirmation of a diagnosis may be had in only a relatively few conditions and not invariable in those. Nevertheless, diagnoses are being made constantly. There are innumerable cases in which the combination of history and clinical evidence makes the diagnosis of gonorrhea reasonable.

The management of gonorrhea is broader than the treatment of the patient because it is a communicable disease. The protection of the patient's family, the

sexual partner and the community is an essential part of the procedure. Warning the patient against the infection of others is not the physician's only responsibility. Those who may have been infected are entitled to the undeniable advantage of early diagnosis and prompt medical care. Furthermore, they may be as capable as the patient of spreading infection. Time is a major consideration.

A majority of the society believes that if the disease is clinically gonorrhea, the patient should be given the clinical opinion even though the patient is married and denies extra-marital exposure. Otherwise it will be impossible either to control the patient or to request the examination of those who have been exposed. A minority feels that it is not necessary to express so positive an opinion. This minority would warn the patient that the condition may be communicable. A few would go so far as to say that it might be gonorrhea. This, it is reasoned, will give the physician ample control over the patient and sufficient reasons for proceeding to the examination of others.

The society is unanimous in its belief however that no physician is justified in allowing the probable, or even possible, infection of another person when a clinical opinion might help to control gonorrhea.

The Clinical Diagnosis of Gonorrhea in the Male

A clinical diagnosis of gonorrhea may not be made lightly even though the patient admits sexual exposure. A number of other conditions may superficially resemble it. A careless diagnosis of gonorrhea is serious if, instead, the patient has a tuberculous kidney or a urethral chancre. The patient's family or sexual contacts may be disturbed unnecessarily if the condition proves shortly to be the result of the too energetic use of a prophylactic. It must be remembered, however, that the great majority of genito-urinary infections in the male are caused by the gonococcus.

Gonorrhea of the male genito-urinary system always involves the anterior urethra. In all but a few cases it reaches the posterior urethra whereupon the prostate gland and the neck of the bladder are invariably infected. The vesicles are frequently involved and epididymitis may be a complication. A gonorrheal cystitis is rare. Gonorrheal rheumatism, ophthalmia, endocarditis, meningitis and proctitis are possible complications, the first two by no means uncommon.

The art of diagnosis consists in putting together the evidence produced by history, clinical examination and laboratory procedures. These three sources of information are by no means equally or consistently productive. History may be concerned only with exposure or it may include a lengthy account of the development of the disease, depending on when the physician first sees the patients. Clinical examination may produce clear-cut evidence in the early days of an infection, or only another link in a long chain if the disease has subsided everywhere but in a single structure such as the prostate. Laboratory findings are of less differential value as time goes on.

If the patient is first seen immediately following infection, the picture is probably that of an anterior urethritis which may be quickly determined by the two-glass test. The symptoms and signs may be so mild as to be almost unnoticed, or they may be extremely severe. If the infection has been treated, they may be greatly modified. A simple anterior urethritis which has subsided and has reached the stage in which the discharge has disappeared is very important as far as transmission is concerned. With the urine clear, there is a great tendency for the patient to think himself cured, to disregard the warning of his physician and to spread the infection through sexual relations.

If the patient is first seen when the infection has extended into the posterior urethra (again checked by the two-glass test), the picture is that of an anterior-posterior urethritis. It is always accompanied by prostatitis. Here again the signs and symptoms may range from extreme mildness to extreme severity, and may have been greatly modified by previous treatment.

If the patient is first seen when the anterior-posterior urethral infection has subsided, the picture is that of a persisting prostatitis. This is seen almost invariably in the patient who has become discouraged with the results of drug-store or self-treatment, or who is a "medical-shopper." It is the most difficult stage of the disease in which to make a diagnosis, and it is the most dangerous because the patient is sufficiently comfortable to resume his sexual activities and spread his infection. The control of gonorrhea, so far as medical measures are concerned, depends to a very great extent upon the recognition and control of the disease in this stage.

THE 2 PER CENT SALES TAX

The act providing for a 2 per cent sales tax in Missouri went into effect on June 8. Special Rule No. 56, referring to physicians, surgeons, dentists and veterinarians, follows: "Physicians, surgeons, dentists and veterinarians are the consumers of various items of tangible personal property which they use in the rendition of their professional services, and the tax must be paid by them upon purchases of all items of tangible property, including equipment, medicines, etc., which they purchase. The tax does not apply to the amount charged for professional services rendered. If physicians, surgeons, dentists and veterinarians, apart from their professional services, sell to the public such articles as medical supplies, mouth washes, dentifrices and such items, they are then engaged in the business of making sales, taxable under the Sales Tax Act."

OBITUARY



MILTON PLEAN OVERHOLSER, M.D.

Dr. M. P. Overholser, Harrisonville, a graduate of the Kansas City Medical College, 1884, died at his home after a long illness on June 19, aged 78 years.

Dr. Overholser was born in Will County, Illinois. At the age of 6 he moved with his parents to Lancaster County, Pennsylvania, where he received his elementary and high school education. Through association with a neighbor physician during this time, Dr. Overholser decided to study medicine. His family moved to Russell County, Kansas, when he was 19 and he taught school for several years in that vicinity before studying medicine.

After completing his medical education he began his practice in Simpson, Kansas, and in 1889 he moved to Harrisonville where he remained in active practice with the exception of several years when he was head of the state hospitals at Nevada and St. Joseph. In 1911 he was appointed superintendent of the State Hospital at Nevada but returned to Harrisonville in 1913. In 1927 he was appointed superintendent of the State Hospital at St. Joseph where he remained for three years. He was a member of the State Board of Health for several years; a member of the Board of Pension Examiners for several terms; local surgeon for the Missouri Pacific Railroad for thirty-five years, and lecturer on hematology in the Kansas City Medical College, Kansas City.

Dr. Overholser was a charter member and principal

organizer of the Cass County Medical Society. He served the Society as secretary and as president and was elected an honor member in 1934. When the state was first divided into councilor districts Dr. Overholser was Councilor of his District which was then composed of Jackson, Johnson, Cass, Bates, Henry, St. Clair and Dade counties. He assisted in organizing the societies in several of these counties. He resigned as Councilor when he became active in the State Board of Health.

He served as President of the Association and presided at the Annual Session in 1919 at Excelsior Springs. He was chairman of the Committee on Revision of Constitution and By-Laws for several years.

The Council of the Association adopted the following resolutions at its session in St. Louis, July 14:

WHEREAS, Dr. M. P. Overholser, Past President of the State Medical Association, departed this life, and

WHEREAS, The medical profession lost one of its most worthy members who devoted a lifetime of service to the good of humanity, therefore be it

Resolved, That this body go on record as expressing its deep sympathy to the members of his bereaved family, and be it further

Resolved, That a copy of this resolution be spread upon the minutes of this meeting and a copy thereof sent to his family.

Dr. Overholser had practiced the most of his fifty-three years of active practice in Harrisonville. However, he was well known and highly revered throughout the state and his death marks the passing of one of organized medicine's staunchest supporters and most earnest workers.

Surviving are his widow, Mrs. Fanny Long Overholser, Harrisonville, and two sons, Dr. Milton D. Overholser, head of the department of anatomy of the University of Missouri School of Medicine, Columbia, and Dr. Earle L. Overholser, head of the department of horticulture of Washington State College, Pullman, Washington.

LYNN G. TAYLOR, M.D.



Dr. Lynn G. Taylor, Kansas City, died at his home, March 31, 1937, after several months' illness. Suffering from a goiter he was taken to St. Luke's Hospital in December where he remained about a month. When he seemed to show improvement he was taken home where he remained until his death.

Dr. Taylor, more than 50 years a general practitioner in Kansas City, was born November 11, 1860, in New Philadelphia, Ohio. He was graduated from the Western Reserve Medical College, Cleveland, in 1882, was an intern two years and spent a year in the New York Post-Graduate School. He came to Kansas City soon after he finished his postgraduate work and began his practice, specializing in internal medicine, in which field he took high rank.

Dr. Taylor, always active in the affairs of his profession, had been a member of the Jackson County Medical Society since 1884, also a member of the Missouri State Medical Association and of the American Medical Association. Being keenly interested in the educational activities of his own and related professions he had been a member of the faculty of the Kansas City College of Pharmacy since 1901, and a member of the faculty of the Kansas City-Western Dental College since 1905. He delivered many clinical lectures and for many years had been on the visiting staff of Research Hospital.

December 31, 1887, Dr. Taylor married Katherine Anderman of New Philadelphia, who died in 1925. There are no children. A sister, Miss Mary Taylor, New Philadelphia, was with him through his illness.—From the Jackson County Medical Journal.

NOE F. CHOSTNER, M.D.

Dr. N. F. Chostner, Cape Girardeau, a graduate of the St. Louis College of Physicians and Surgeons, 1905, died of angina pectoris on November 13, 1936, aged 57 years. Dr. Chostner had been in ill health for some time but had continued his practice. He died suddenly at the home of a family, members of which he had treated.

Dr. Chostner was born at Scopus and spent his early life there. He attended the Will Mayfield College at Marble Hill before beginning his medical studies. He began his practice at Dutchtown and remained there for fifteen years before going to Cape Girardeau where he remained in active practice until his death.

He was on the staffs of the Southeast Missouri Hospital and the St. Francis Hospital. He was a member of the Cape Girardeau Board of Health for several years. Dr. Chostner was a Scottish Rite Mason, a member of Eastern Star, the White Shrine, the Modern Woodmen of America and the Lions Club. He was an active member of the Centenary Methodist Church.

Dr. Chostner was active in organized medicine and had served the Cape Girardeau County Medical Society as president, vice president and secretary.

Surviving are his widow, Mrs. Alma Meyer Chostner, a daughter and a granddaughter, five sisters and a brother, a physician in Detroit.

L. A. WILSON, M.D.

Dr. L. A. Wilson, Cameron, a graduate of Northwestern University Medical School, 1921, died November 16, 1936, aged 45 years.

Dr. Wilson was born at Brookfield. The family moved to Cameron and Dr. Wilson spent his boyhood there and attended the public schools. He attended the Missouri Wesleyan College and the University of Missouri before beginning his medical studies at Northwestern University Medical School.

During the World War he enlisted in the R. O. T. C. for service and continued his studies during his enlistment.

He began his practice in Cameron and had a large practice until the time of his illness.

Dr. Wilson became a member of the Clinton County Medical Society soon after he began practice and served as secretary-treasurer for a number of years and as an alternate delegate for several years.

He is survived by his widow, Mrs. Frances Bumstead Wilson.

J. D. DUNHAM, M.D.

Dr. J. D. Dunham, Pattonsburg, a graduate of the College of Physicians and Surgeons, Keokuk, Iowa, 1877, died at his home October 6, 1936, aged 81 years. Dr. Dunham had been confined to his bed for five years.

Dr. Dunham was born in Ohio. After completing his medical studies he began his practice in Pattonsburg and remained in practice there until his health failed.

He was active in organized medicine. He served the Daviess County Medical Society as president for a number of years and was elected permanent president and an honor member of the Society in 1927. He served as president until Grundy and Daviess county societies were hyphenated in 1934.

Dr. Dunham was well known and respected throughout Daviess County and his death was widely mourned.

Surviving are his widow and two sons.

WILLIAM C. CALDWELL, M.D.

Dr. W. C. Caldwell, Wentzville, a graduate of the Homeopathic Medical College of Missouri, St. Louis,

1901, died at his home February 15 after an illness of several months, aged 66 years.

Dr. Caldwell was born in Warrick County, Indiana. He began his medical practice in Stoddard County and remained there until 1928 when he moved to St. Charles County in the vicinity of Howell. He remained there for several years then moved to Wentzville where he remained in active practice until his health failed.

Dr. Caldwell was a member of the Stoddard County Medical Society and transferred his membership to the St. Charles County Medical Society when he moved to that county.

Surviving are his widow, Mrs. Carrie Wilson Caldwell, two sons and one daughter.

JUNIATTUS A. FISHER, M.D.

Dr. Juniattus A. Fisher, St. Louis, was born at Lamain, Missouri, on April 4, 1873. He spent his early boyhood days in the vicinity of his home. His early life was no different from that of other young men who were raised in a rural community.

Dr. Fisher attended the old College of Physicians and Surgeons where he was graduated in 1899 and immediately began the practice of medicine. He joined the St. Louis Medical Society in 1906.

I knew Dr. Fisher quite well and was in frequent contact with him for a number of years. He did general practice for quite sometime and had the admiration and confidence of his patients. While he was a man of quiet reserve, yet those who knew him well considered him a deep thinker and one much interested in his profession. For many years he paid particular attention to roentgen ray diagnosis and as I recall was one of the earlier users of the more modern roentgen ray equipment.

Dr. Fisher's death was an untimely one as he was only 63 years of age and was quite active almost up to the time of his death, which took place on June 16, 1936. He is survived by his widow and one son.

In the passing of Dr. Fisher the medical profession has lost a conscientious and valued member, and the family a devoted father and husband.—O. A. A. in the *Bulletin* of the St. Louis Medical Society.

GEORGE EDWIN COOK, M.D.

It is my belief that happy sayings concerning people had best be made while they are living. However, many things can be said when they are gone for the benefit of those who remain.

It was my pleasure and good fortune to know Dr. George Edwin Cook when he was going about his daily duties as physician in St. Louis. He was a quiet man, disdained publicity, sought no worldly honors except the privilege of serving those who came to him sick and suffering.

He was born in Champaign, Illinois, March 6, 1875, and left his work here on June 19, 1936. His baby years were spent in Champaign. At the age of 5 his father and mother removed to Centralia where he passed through the usual experiences of childhood, public school and high school education. In 1901 he came to St. Louis and began his study of medicine at the College of Physicians and Surgeons, from which institution he was graduated with credit in the year 1905. Immediately after graduating he became a registered physician in the State of Missouri and also in the State of Illinois.

He early became a member of the St. Louis Medical Society and thus became a part of organized medicine.

Of the thirty-five years of his life spent in healing the

sick in the City of St. Louis, practically all was spent in the neighborhood of 9th Street and Hempstead Avenue.

In 1912 he married Miss Lutie Boyce of St. Louis. A daughter survives.

His further personal characteristics were exemplified by the fact that he became a member of the Order of Ancient Free and Accepted Masons in which he took all the degrees up to and becoming a member of Missouri Consistory number one. He was also a member of Alhambra Grotto.

Dr. Cook did not take advantage of many opportunities for personal recreation. He owned a farm near Cold Water Creek, south of St. Louis. Many times in speaking to me he mentioned the fact that it was his aim some day to go down to his farm and live, but, as most of us do, he remained attentive to his professional duties and postponed his time for relaxation until Mother Nature deprived him of the chance. To me it seems that the greatest of physicians is the one who can make more comfortable in this life the largest number of people. It was always Dr. Cook's ambition to make those with whom he came in contact, happier. He possessed a peculiar propensity, which made him, in my estimation, an exception among doctors. The same was manifested by his ability to properly invest his money and as a result of sound business judgment, he became wealthy.

I feel that now it is not a time to mourn his going but more a time to be happy in the realization that he accomplished his life's work here in a most creditable manner; that our loss is others gain, that the relinquishment of his past here only means that somewhere, somehow, in some way he has entered a new field with new surroundings in the midst of new people, with new duties and a new ambition to impel him through another vital cycle.—H. C. H. in the *Bulletin* of the St. Louis Medical Society.

FRANCES L. BISHOP, M.D.

Dr. Frances Lewis Bishop, St. Louis, an active member of the St. Louis Medical Society for thirty-three years, was called to eternal rest September 11, 1936.

Dr. Bishop was a pioneer of the recognized women physicians of this Society. During the years of her membership she manifested a keen interest in its progress and was a faithful participant in all its activities.

She was born in Bloomington, Indiana, July 31, 1864, the daughter of the Reverend John M. Bishop, former president of Miami University, at Oxford, and Mrs. Bishop. She was educated at Miami University, Western College for Women and the University of Michigan, from which institution she received her medical degree in 1893.

While in general practice Dr. Bishop devoted much of her time to civic projects. She was the first health examiner for the St. Louis public schools and had recently served as examiner for the Physical Education Department of Washington University. She was one of the original members of the Missouri Social Hygiene Association; was active in the Missouri and St. Louis Tuberculosis societies and was a member of the Pure Milk Commission.

For many years Dr. Bishop was identified with the Young Women's Christian Association, devoting much time to aiding young women not only professionally but by advice and counsel.

We miss the genial presence of Dr. Bishop from our midst. Also we realize that the numerous organizations and public welfare works which she so actively and generously supported have suffered a keen loss in

her demise.—K. C. S. in the *Bulletin* of the St. Louis Medical Society.

GEORGE H. KUPER, M.D.

Dr. George H. Kuper, St. Louis, was a native St. Louisan born on December 22, 1874. His mother was of French parentage and his father German. His father, a very large man and a cattle dealer, was well known all over North St. Louis. Besides the doctor there were two brothers and four sisters; one of the former, a dentist here in St. Louis.

As a boy the doctor attended a local parish school, then went to Christian Brothers College, afterward entering the College of Physicians and Surgeons where he was graduated in 1895.

When beginning the practice of medicine he had an office in Baden and one on North 20th Street, but later gave up the one in Baden to continue at the North 20th Street site until his death.

I learned to know him not long after I opened an office in 1909. I had been given a list of names to solicit for money toward the expense of the American Medical Association Convention here in St. Louis. The first impression he made when he received me in his office with a genial smile and a hearty handshake lasted through the years.

Frequently it was my privilege to learn from his experience the manner of handling a patient. Many times did I help in doing some difficult piece of work. If the patient was working or had means the doctor insisted that I be paid and saw that it was done. Although himself a man of means, often he would use much time in caring for some poor family, going out of his way in order to bring about a recovery and get them back on their feet.

As the years passed I began to realize there was something wrong with his health and finally one morning he told me what ailed him but without complaining or fault-finding for his lot. Thanks to insulin he was enabled to live a long time thereafter.

From time to time, thereafter, I saw him but with less frequency until not long before his death, even then he was his cheery self notwithstanding the fact that his attending physician, with whom I called, must give him sedatives to relieve the pain.

He passed on to his reward August 26, 1936, and it can be truly said that besides the family his patients and his friends truly miss him.—C. A. S. in the *Bulletin* of the St. Louis Medical Society.

CHARLES GILBERT CHADDOCK, M.D.

When we are passing on, and it is time for us to take an accounting of why we were here and what has been most worth while, I think the answer should be, not for all but for the best of us, that we have left the field of knowledge itself in which we have worked the better for our having worked in it.

Such was Dr. Chaddock, brilliantly incisive as to mind, broad as to culture, as dear a friend as a man ever had.

He was born in Jonesville, Michigan, on November 14, 1861, son of Gilbert and Anne Sinclair Chaddock. After his graduation from Jonesville high school in 1878 he attended the medical department of the University of Michigan, receiving his M.D. in 1885. This was followed by postgraduate studies at the University of Munich and in the hospitals of Paris. He was married December 18, 1890, to Mrs. Adelaide Gowans McPherson of Buffalo. He died in St. Louis on July 20, 1936.

He was assistant medical superintendent of the

Northern Michigan Asylum from 1889-1892. He resided in Germany in 1888. He was professor of nervous diseases at the Marion-Sims Medical College in 1892 and retained this chair in the medical department of the St. Louis University and served as chairman of that department until 1910.

Dr. Chaddock was a member of the American Academy of Medicine, American Medico-Psychological Association, the American Medical Association, the St. Louis Medical Society, the St. Louis Neurological Society and an honorable fellow of the Chicago Academy of Medicine.

His translations of Kraft-Ebing and Schrenck-Notzing are well known. His authoritative articles on sexual crimes are fundamental in our legal conceptions of today. So long as the sub-malleolar sign and the Chaddock wrist sign remain useful, Chaddock's name will be a part of his chosen field.

It was a privilege to have known Chas. Gilbert Chaddock, a privilege and an inspiration. The French whom he so loved, have a term "‘Èlève’ Chaddock left Èlèves." Through them the torch is handed on. The spirit of work such as Chaddock's lives after the worker is gone. And so I present to this, his Society, the memory of one who has left medicine better off for having worked at it; better off perhaps than has anyone of us since the day of Beaumont.—G. C. in the *Bulletin* of the St. Louis Medical Society.

ALPHEUS LUTHER POLLARD, M.D.

Dr. A. L. Pollard, Sedalia, a graduate of the State University of Iowa College of Homeopathic Medicine, 1893, died at his home on January 2 after an illness following a stroke. He was 81 years old.

Dr. Pollard was born in Indiana but moved with his parents to Boone County, Iowa, and spent his early years there. He was in the lumber business for several years before deciding to study medicine. After completing his medical work he began practice in Iowa City. He later practiced in Denver, in Dines, Wyoming, and in West Point, Iowa, before locating in Sedalia about eight years ago. Soon after he began his practice in Sedalia he served as city physician.

The Pettis County Medical Society elected Dr. Pollard an honor member in 1935. The Society adopted the following resolution on his death:

WHEREAS, Dr. Alpheus Luther Pollard, an honor member of the Pettis County Medical Society and a member of the Bothwell Memorial Hospital staff, passed to his reward on January 2, 1937, after an illness incidental to the advanced age of 81 years, this Society has lost a worthy, efficient and esteemed member whose long and faithful service in his profession, his church work and exemplary life as a Christian and a Mason, as well as his genial disposition has endeared him to all who knew him, therefore be it

Resolved, That as a tribute to our departed member a copy of these resolutions be sent to the bereaved family, a copy to the local press and to the Missouri State Medical Association, also a copy be spread on the minutes of the Pettis County Medical Society.

Surviving are his widow, Mrs. Amy Gillett Pollard, two children, three grandchildren, two brothers and a sister.

Books for Leisure Moments

Out of the welter of literature that has been and is poured forth each year by medical men there are a few papers that have heralded significant advances and that have served to recast a portion of medical thought but have been lost to sight. They have been buried in a few historical museums, seemingly forever unavailable to the rank and file of medical men who

might like to read them for the reverence they have accorded their authors, for the pure delight of communion with the spirit of the brilliant mind or the painstaking investigator whose genius advanced our knowledge.

A few years ago I sought vainly for a paper by Robert Langerhans in which he described some bits of tissue in the pancreas, since called by his name, which have come to play such a vital part in the modern concept of diabetes. Therefore, it was a real pleasure to see a reproduction of the original German thesis with an English translation and an introductory essay by H. Morrison published by the Johns Hopkins Press under the title, "Contributions to the Microscopic Anatomy of the Pancreas." Indeed, so modestly was this contribution written that it was not until a quarter of a century later that the French histologist, Laguesse, recognized its tremendous importance and provisionally designated the islets which he found in the pancreas of an executed criminal as islets of Langerhans.

Langerhans worked on rabbits, teased apart the pancreatic tissue, observed tiny yellow flecks in its substance. Under the microscope, even after injection of the ducts with the crude dyes available to him, he was unable to demonstrate a connection between them and the acinous structures.

It is to be hoped that the volume will find wide distribution, that the publisher may thereby be encouraged to make available similar lost masterpieces punctuating the history of medicine and by their very originality standing apart from the mass of medical literature.

B. Y. G.

An obscure Oxford poet is credited with the observation that all the world is queer . . . and that sometimes even thou art queer. . . . Now that I have read Dr. Karen Horney's "The Neurotic Personality of Our Time" (W. W. Norton & Co., Inc., New York), I am not so sure that even I am not queer. While the book will undoubtedly prove of much value to physicians it certainly should not be placed in the hands of patients.

Horney begins by assuming the general validity of Freud's researches into the psyche but insists that the views of the master need expansion, that they require reinterpretation in the light of modern sociological conditions. Perhaps his underlying thesis may be expressed in the sentences that personal attitudes and reactions are influenced by and vary with the mores of the period. The effort necessary to the realization of ambition, the delinquencies between preachment and practice, the part that fortuitous accident plays in life, the undeserved acclaim that may be awarded to another, those and other factors continually operating in the mind may set up conflicts of such a nature that existence is seriously threatened. The anxiety so created serves to hamper constructive effort, even resists the attempt of the psychoanalyst to restore the individual to normality by revealing the content of the suppressed thought.

The particular anthropological culture and the emotional experiences of childhood with all of the family and personal conflict inherent to them combine to determine the exact form and degree of neurosis. But the author is not entirely satisfying in his efforts to make clear why some children grown to adulthood develop a neurosis while others fail to do so. He is to be congratulated for his adherence to the thesis that sex dissatisfactions alone are not the sole source of the neurotic personality; indeed, that there may be no sex disturbance at all in neurotic persons, or that such disturbances as may arise are secondary to some

dimly realized primary nonsexual frustration. Anxiety in whatever concern it may arise and the efforts to cover it up are suggested as the ultimate cause of the neurotic personality.

Four types of anxiety, always in association with the repressed hostility which it engulfs, are delineated, depending upon whether the danger is directed against the self or against others and whether it arises in the self or in others.

But what to do about it, how to direct the individual back into a socially acceptable mode is not revealed. After all, must each individual conform to a man made norm? Perhaps more latitude should be allowed the adult in his action; unless he proves himself obnoxious or potentially dangerous to others, is it important that he be pulled back into the grace of sanity? Horney makes it perfectly clear that the anxiety and the restrictions and the phobias which the neurotic manifests are means by which he continues to maintain life. Those of us without his intense emotional preoccupation are doubtless abnormal to him. Would it not be just as important, then, to teach us, the nonneurotics how to live with the neurotics as the author thinks it is for the neurotics to be taught to live with the nonneurotics? In early life it is important to all that children be nearly alike for childhood may be taken to represent undifferentiated psychic protoplasm; if enough adults leave it alone long enough, it will probably grow to adult life without phobias or neuroses.

Some day I hope to see a book by an old-fashioned country doctor in which he will describe how he gets the nonneurotic members of his practice to live happily with the neurotics. Since Horney describes a neurosis as the result of the conflict between conception and execution in any given sociological structure, surely the neurotic has always been with us, called perhaps by another name, perhaps so treated outside an institution that he may live and let others live. But read Horney's book for he has analyzed the component parts of personality accurately and well. Let him stir your own train of thinking that you may recognize the close line between normal and abnormal, be less quick to conclude abnormal, more sympathetic with the anxiety which characterizes too much of modern life.

B. Y. G.

There are some diseases which medicine and surgery of themselves cannot help. Yet those who suffer from them are often in more urgent need of competent assistance than those with more purely organic syndromes. Dr. Edward C. Mason, Professor of Physiology at the University of Oklahoma School of Medicine has written "Why We Do It" (C. V. Mosby Company, St. Louis) in order that the intelligent layman may have some understanding of the mechanism leading to emotional and personality disorders. He has produced a simple, readable book, characterized particularly by an abundance of definition.

It is generally agreed that personality disorders have their beginnings in childhood. That is the time at which the handling accorded the child by his parents largely determines the emotional stability with which he is going to face the problems of reality confronting him during his later years. Mason divides the problems of the personality into those dependent upon the brain, endocrine, and autonomic nervous system mechanisms, as determined by hereditary, physical and environmental factors. It is doubtful if all of the statements made in this connection can be considered as scientifically proved; yet this method has the advantage of offering the laymen a definitive structure to which he can relate the manifestations of life about him.

In addition to the purely intrinsic physiology which

gives direction to the psychological attitude of the individual, Mason describes the modifying factors of sexual and social (or herd) development. The socializing influence of play is stressed and it is highly probable that the individual's relations with his peers go further than any other single factor in determining the presence of emotionally disintegrating factors. Of the four directions which the author offers for the prevention of personality difficulties, three have to do directly with the ease of social adaption. They are (1) a direct meeting with reality, (2) the maintenance of self-respect and due humility, and (3) indulgence in social activity. Even the fourth prerequisite, the maintenance of a happy even disposition, depends to a large extent upon the social adaptability of the individual.

This little book may be safely recommended to patients seeking some understanding of mental hygiene, either for their own sake or for the sake of their children. But after it has been read, greater good can be accomplished if it is thoroughly discussed with the physician who after all, remains the final arbiter and interpreter.

The United States Public Health Service has assembled reports of chronic disease and gross impairments in some 3,000,000 persons in ninety-two representative localities canvassed in 1935-1936, supplementing its observations on the prevalence and incidence of disabling illness, with information on the present status of health department practice and the extent of local facilities for the care of the sick in the surveyed areas. George St. J. Perrott and Dorothy F. Holland, Washington, D. C. (*Journal A. M. A.*, May 29, 1937), summarize the results of a northern industrial city. 1. Approximately one in every five persons canvassed was reported to have a chronic disease, a serious defect of vision or hearing or a permanent physical impairment resulting from disease or injury. 2. In the total population, one in every twenty-five persons had been disabled by chronic disease for one week or longer in the survey year; in marked contrast are the corresponding ratios of one in fourteen for the relief population, and one in eight for persons aged 65 years and over. Continuous disability for a period of twelve months or longer, due to a chronic disease or gross impairment, was reported by one in every 100 persons of all ages, while among the aged, one in every twenty persons had been a chronic invalid for at least twelve months. 3. On the day of the canvass, approximately one in ten of the unemployed heads of families were unemployed because of disability. 4. The burden of chronic disease in lost time and cost of medical and nursing care is indicated by the fact that while only one fourth of the disabling illnesses, and somewhat over one third of the hospitalized cases were chronic, these cases accounted for over two thirds of the total annual days of disability recorded for the surveyed population and for four fifths of the annual hospital days. Chronic cases likewise absorbed one half of the annual services of physicians and almost three fourths of the annual bedside nursing days, although acute illnesses predominated among cases attended. 5. The types of chronic disease found to be most seriously disabling were the cardiovascular-renal group, cancer, diabetes, ulcer of the stomach and chronic diseases of the gallbladder, rheumatism, tuberculosis and the nervous diseases. 6. Permanent major orthopedic impairments, the result of both current and prior accident and disease, were reported by approximately one in 150 young persons under the age of 25 and by one in fifty adults aged 25 and over.

SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.

Chariton County Medical Society, December 1, 1936.

Ste. Genevieve County Medical Society, December 15, 1936.

Dent County Medical Society, January 8, 1937.

Lincoln County Medical Society, February 16, 1937.

Benton County Medical Society, February 26, 1937.

Moniteau County Medical Society, March 29, 1937.

Barry County Medical Society, May 14, 1937.

Camden County Medical Society, May 14, 1937.

Morgan County Medical Society, May 14, 1937.

RANDOLPH-MONROE COUNTY MEDICAL SOCIETY

The Randolph-Monroe County Medical Society met in the Public Library, Moberly, at 8 p. m., June 8. The meeting was called to order by the vice president, Dr. Martin P. Hunter, Moberly.

The scientific program consisted of a talk on "Urologic Problems of the General Practitioner," by Dr. Andy Hall, St. Louis. This instructive talk was illustrated with lantern slides and was ably presented. A general discussion followed.

The following guests and members attended: Drs. Andy Hall, St. Louis; F. L. Harms and G. W. Hawkins, Salisbury; M. C. McMurry and G. M. Ragsdale, Paris; R. A. Woods, Clark; M. R. Noland, Jesse Maddox, F. L. McCormick, C. C. Smith, M. P. Hunter, C. K. Dutton, T. S. Fleming, R. D. Streeter, L. E. Huber and M. E. Kaiser, Moberly.

M. E. KAISER, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met at 2:45 p. m. on June 9, Dr. U. S. Short, St. Louis, presiding.

Dr. John D. Hayward, St. Louis, presented a case of tumor of the upper right quadrant which proved to be a large retroperitoneal cyst of the right kidney, hydronephrosis.

Dr. W. D. Balfour, Kealia, Hawaii, spoke on "The Practice of Medicine in the Islands."

Dr. Leon Bromberg, St. Louis, gave an interesting paper on "Fever Therapy," illustrated by lantern slides and motion picture. He pointed out that the diseases of gonococcal origin, conditions of the rheumatic fever group and central nervous system lues seem to be most benefited by this procedure.

Dr. D. M. Skilling, Webster Groves, proposed a rising vote of thanks to the speaker.

JULIUS JENSEN, M.D., Secretary.

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met at the Freeland Hotel, Houston, at noon, June 18, for dinner. The following members and visitors were present: Drs. R. A. Ryan and A. C. Ames, Mountain Grove; W. F. Herron, L. M. Dillman, W. A. Covert and Scott Smith, a medical student, Houston; W. H. Breuer, St. James; A. S. McFarland, Rolla; A. H. Thornburgh and E. C. Bohrer, West Plains; L. C. Randall and H. L. Reed, Licking; J. B. McDaniels, Summersville; G. V. Stryker, Robert Britt and J. A. Brennan, St. Louis. The meeting was called to order in the hotel dining room by the president, Dr. R. A. Ryan, Mountain Grove.

Dr. W. H. Breuer, St. James, Councilor, spoke briefly, outlining his plans to hold two meetings a year for his District, at West Plains in August and at Rolla next winter. He discussed his wishes to get as many as possible of the eligible physicians in the district to become members and asked for the cooperation of the Society.

Dr. G. V. Stryker, St. Louis, spoke on "The Public Health Aspect of Syphilis," and "Mucocutaneous Syphilis in the Three Stages."

Dr. Robert Britt, St. Louis, spoke on "Syphilis of the Nervous System."

Dr. A. J. Brennan, St. Louis, spoke on "Syphilis of the Vascular System."

The meeting adjourned to the Melba Theater where slides and films illustrating the various phases of syphilis were shown and the papers further discussed.

A vote of thanks was extended to the speakers.

It was voted to hold the next meeting in August at West Plains in conjunction with the district meeting as proposed by Dr. Breuer.

A. C. AMES, M.D., Secretary.

PERRY COUNTY MEDICAL SOCIETY

The Perry County Medical Society was called to order by the president, Dr. B. T. Koon, Perryville, on July 14, at the office of Dr. O. A. Carron, Perryville, with Drs. Koon, Carron and J. J. Bredall, Perryville, present.

The secretary presented resolutions to the Society for their acceptance and approval on obtaining financial assistance from the county to help care for the indigent sick of Perry County who heretofore have been cared for entirely by the good-will of the medical profession. The burden is becoming so great that it was considered necessary to ask the county for some financial assistance. The resolutions as presented were approved by the Society and are to be presented to the county court some time in August.

An interesting medical film, "Cardiac and Renal Edema" was presented.

O. A. CARRON, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

16th Annual Meeting, San Francisco, 1938

President, Mrs. August Kech, Altoona, Pennsylvania.
President-Elect, Mrs. Charles C. Tomlinson, Omaha, Nebraska.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.
President-Elect, Mrs. Herbert L. Mantz, Kansas City.

The Cape Girardeau Session

The Woman's Auxiliary to the Missouri State Medical Association held its thirteenth annual meeting in Cape Girardeau, May 11 and 12, at the Centenary Methodist Church, with the President, Mrs. Walter C. Kirchner, St. Louis, presiding.

The invocation was given by Rev. R. H. Daugherty, pastor of Centenary Methodist Church, followed by an address of welcome by Mrs. J. J. Drace, president of the Cape Girardeau County Auxiliary. Response was made by Mrs. Willard Bartlett, St. Louis.

The president reported twenty-two auxiliaries now organized in the state, a new one in Perry County having been added during the year.

There were five hundred and thirty essays written in the Essay Contest on the subject, "Your Health and How to Preserve It."

Hygeia subscriptions sent in numbered 389.

The press and publicity chairman published four issues of the *Bulletin* financed, for the first time this year, by an allotment in the budget.

A unified health education program on "Mental Hygiene" was prepared by the program chairman.

Some auxiliaries working in cooperation with local or the state health departments assisted in clinics for crippled children, pre-school children, diphtheria immunization, tuberculin testing, skin and cancer.

Many members assisted in the enrollment in the Women's Field Army for the control of cancer headed by our own Mrs. David S. Long, Harrisonville, as state commander.

Through the efforts of Mrs. Frank L. Davis, St. Louis, a new year book was published and distributed to the members without cost, being financed by advertisements.

Fifteen auxiliaries reported showing much constructive work being done throughout the state in the interest of medicine.

The following officers were elected for the coming year:

President, Mrs. Charles H. Werner, St. Joseph; president-elect, Mrs. Herbert L. Mantz, Kansas City; vice presidents, Mrs. J. W. Lightner, Odessa, Mrs. Frank L. Davis, St. Louis, Mrs. J. J. Drace, Cape Girardeau, Mrs. W. H. Breuer, St. James; recording secretary, Mrs. M. L. Diekroeger, Marcelline. Directors for two years: Miss Byrd Price, Nevada; Mrs. F. E. Butler, Salem; Mrs. Edward P. Heller, Kansas City; Mrs. Herman S. Gove, Linn; Mrs. Alexander Kotkis, St. Louis. Directors for one year: Mrs. J. M. Trigg, St. Louis; Mrs. P. O. Upshaw, Springfield; Mrs. E. E. Brown, Cape Girardeau; Mrs. H. W. Carle, St. Joseph; Mrs. H. S. Dowell, Chillicothe.

A memorial hour was conducted by Mrs. J. W. Lightner, Odessa, assisted by Mrs. David S. Long, Harrisonville.

Following the close of the meeting a luncheon was held at the Cape Girardeau Country Club and the new officers were presented.

An interesting and unusual feature of the Convention was the hobby show the evening of May 11 given under the auspices of the Cape Girardeau Auxiliary.

The hostess auxiliary had arranged a program of luncheons, banquet and two teas, one at the Southeast

Missouri State Teachers College and the other at Oak-
enwald, the beautiful home of Dr. and Mrs. C. A. W.
Zimmerman. Fine musical programs were given at
the teas and interesting talks by guest speakers at the
luncheons and banquet.

BOOK REVIEWS

PREOPERATIVE AND POSTOPERATIVE TREATMENT. By Robert L. Mason, A.B., M.D., F.A.C.S., Assistant in Surgery at the Massachusetts General Hospital. Illustrated. Philadelphia: W. B. Saunders Company. 1937. Price \$6.00.

In the front of the book we find the quotation of Lord Moynihan, "Surgery has been made safe for the patient; we must now make the patient safe for surgery." The author seems to have accomplished that by writing this splendid work.

Many of the chapters have been written by men associated with medical schools and hospitals in and around Boston. Chapter III, by Laurence B. Ellis, deals with the surgical risk and management of patients with heart disease. It is well prepared and presented. The same writer contributed the chapter on hypertension. Dwight L. Siscoe deals with the preoperative and postoperative care of the surgical patient suffering also with diabetes. Chapter VI, by Sidney Cushing Wiggin, in which all types of anesthesia are discussed, is complete. The portion of that subject concerning preoperative medication is a good addition. The other chapters on shock, water balance and methods of parenteral administration of fluids, acidosis and alkalosis, adynamic ileus, acute dilatation of the stomach, care of the wound, disruption of the abdominal wound and postoperative pulmonary complications are condensed yet cover the subjects. There are two good chapters not related to postoperative care, one on the treatment of superficial burns, and the other on thrombosis.

A portion of the book is devoted to postoperative complications and care of regional operations, viz., urinary tract, diseases of the ear, nose and throat, hyperthyroidism, acute empyema thoracis, subphrenic abscess, hernia, gallbladder and biliary tract, stomach and duodenum, appendicitis, intestinal obstruction, gynecology, colon and rectum, urological, traumatic and preoperative and postoperative orthopedic care.

There are thirty-two chapters with an appendix consisting of a table of normal chemical standards. Each chapter has a carefully prepared bibliography. The book is a good addition to any surgeon's library, "to make the patient safe for surgery." H. P. T.

SYNOPSIS OF PEDIATRICS. By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by T. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine, and Assistant Pediatrician to the St. Mary's Group of Hospitals. Second edition. St. Louis: The C. V. Mosby Company. 1937. Price \$4.00.

The second edition of this work brings its subject matter up to date and is somewhat more comprehensive than the original. A small conveniently sized volume of less than four hundred pages, it contains the essential facts basic to clinical pediatrics. It is a model of clear, concise, medical writing and, while primarily intended for students, the practitioner will find its simpli-

fied clinical advice and therapy, evolved from adequate sources of information and subjected to the modifying influences of keen medical observation and extensive clinical experience, most helpful. M. McL.

CLINICAL ALLERGY Due to Foods, Inhalants, Contactants, Fungi, Bacteria and Other Causes. Manifestations, Diagnosis and Treatment. By Albert H. Rowe, M.S., M.D., Lecturer in Medicine in the University of California; Chief of the Clinic for Allergic Diseases of the Alameda County Health Center, Oakland, California; President of the Association for the Study of Allergy, 1927-1928. Philadelphia: Lea & Febiger. 1937. Price \$8.50.

This volume is not merely a revision of Rowe's previous book, "Food Allergy," it is an entirely new presentation of the various facts and theories concerning clinical allergy. Consideration is given to all forms of the accepted allergies together with a discussion of various syndromes in which allergy is a clinical factor. Rowe rightly devotes the major portion of this work to a discussion of the diagnosis and treatment of food allergy since, in clinical practice, this is the most complex and difficult allergic factor to evaluate and treat. At the same time he does not neglect or superficially consider the importance of inhalants such as pollen, fungi, animal emanations, etc.

The discussion of the nature, mechanism and origin of allergy is brief but sufficient for the needs of the average clinician.

This work not only presents Rowe's methods and experiences in clinical allergy but it also gives an unbiased and complete review of the theories of other workers. The bibliography is unusually complete and for the serious student of the subject is one of the best features of the book. There is a complete author index as well as numerous charts and recipes to aid one in diagnosis and treatment. Altogether this is a most satisfactory work of a recognized leader in the field of allergy. H. J. R.

SURGICAL TREATMENT. By James Peter Warbasse, M.D., F.A.C.S., Special Lecturer in Long Island Medical College, Formerly Attending Surgeon to the Methodist Episcopal and the Wyckoff Heights Hospitals, Brooklyn, N. Y., and Calvin Mason Smyth, Jr., M.D., B.S., F.A.C.S., Assistant Professor of Surgery in the University of Pennsylvania, Graduate School of Medicine, Surgeon-in-Chief to the Methodist Episcopal Hospital, Philadelphia, Pennsylvania, Visiting Surgeon to the Abington Memorial Hospital, Abington, Pa. Second edition, thoroughly revised and reset. Three volumes with separate index. 2617 pages with 2486 illustrations on 2237 figures, some in colors. Philadelphia and London: W. B. Saunders Company. 1937. Price \$35.00.

Those of us who have known and used the first edition of this work (1918) are pleased to see so valuable a book revised and brought up to date. With the collaboration of Calvin Smyth, who contributed the recent volume seven of Bickham's "Operative Surgery," the book has been largely rewritten but follows the general outline of the first edition and is about the same size—three individually indexed volumes and a separate general index. As with the first edition the illustrations are good, but most of the new ones seem to have been borrowed from other familiar texts, notably Bickham.

The viewpoint of the book is that of conservative and approved surgery with little discussion of controversial

subjects which is perhaps best in a book of such encyclopedic character. It is impossible, however, for the reviewer to withhold comment on the operation of intrascapulo-thoracic amputation as a treatment for carcinoma of the breast. It would seem that any carcinoma so far advanced as to demand amputation of the upper extremity has already invaded the inaccessible areas of the thorax or abdomen, and such mutilation is probably futile.

On page 238 there seems to be an error in the directions for administration of tetanus antitoxin to sensitive individuals.

As a reference work this book is a welcome addition to any doctor's library, and to the man who is only occasionally interested in surgery there are approved methods concisely presented. B. S. P.

THE CARDIAC GLYCOSIDES. A series of three lectures delivered in the College of The Pharmaceutical Society of Great Britain under the auspices of the University of London. By Professor Arthur Stoll, D.Sc., M.D. (honoris causa). Twenty-Three Bloomsbury Square, London, W. C. 1: The Pharmaceutical Press. 1937.

The question, what diet to give, is perplexing. Reference to some of the large compendiums on dietetics is likely to lead to confusion in the mind of the general practitioner. Hence, this small volume which is just what its name implies may prove of much assistance. It is simply a compilation of diets used at St. Mary's Hospital, so arranged as to simplify the task of diet prescription. B. Y. G.

CLINICAL ENDOCRINOLOGY. By Samuel A. Lowenberg, M.D., F.A.C.P., Clinical Professor of Medicine, Jefferson Medical College, Philadelphia; Assistant Visiting Physician, Jefferson Hospital; Visiting Physician, Philadelphia General Hospital, Northern Liberties Hospital, and Eagleville Sanatorium for Consumptives; Consulting Physician to the Philadelphia Hospital for Contagious Diseases; Author of "Diagnostic Methods of Interpretation in Internal Medicine." Foreword by Hobert A. Reimann, M.D., Professor of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia. With 194 illustrations and thirty-seven charts and tables. Philadelphia: F. A. Davis Company. 1937. Price \$8.00.

This book is an excellent text on endocrinology by an experienced teacher. The author correlates the views of many observers and investigators and adds from his own wide experience. His many years of teaching undergraduate students has enabled him to impart his knowledge in a clear, concise, orderly and interesting manner. He is systematic throughout and deals with the historical aspects of endocrinology, the methods of obtaining a history, the significance of physical signs and laboratory findings and discusses the anatomy and physiology of the various glands. The description of diseases is complete but the field of therapy seems to have been rather neglected. The illustrations are profuse and excellent. The discussion of laboratory interpretation is particularly complete. Professor Lowenberg is eminently fitted for this for he is the author of "Diagnostic Methods and Interpretations in Internal Medicine." The reviewer unhesitatingly recommends this book to students and practitioners as an introduction to clinical endocrinology. L. C.

BOOKS RECEIVED

HIGH WALL. By Alan R. Clark. New York: Harrison Smith & Robert Haas. 1936. Price \$2.00.

MEDICAL MORALS AND MANNERS. By Hubert Ashley Royster, M.D. Chapel Hill: The University of North Carolina Press. 1937. Price \$2.50.

CAREERS AFTER FORTY. By Walter B. Pitkin. New York: Whittlesley House, McGraw-Hill Book Company, Inc. 1937. Price \$1.75.

THE NEUROTIC PERSONALITY OF OUR TIME. By Dr. Karen Horney. New York: W. W. Norton & Company, Inc. 1937. Price \$3.00.

A WOMAN SURGEON; The Life and Work of Rosalie Slaughter Morton. With a Frontispiece. New York: Frederick A. Stokes Company. 1937. Price \$3.00.

CARCINOMA OF THE FEMALE GENITAL ORGANS. By M. C. Malinowsky and E. Quarter. Translated from the Russian by A. S. Schwartzmann, A.B., M.D. Boston: Bruce Humphries, Inc. 1937. Price \$5.00.

MEMORANDA OF TOXICOLOGY. By Max Trumper, B.S., A.M., Ph.D., Consulting Clinical Chemist and Toxicologist. Third edition. Philadelphia: P. Blakiston's Son & Co., Inc. 1937. Price \$2.00.

CLIO MEDICA. GREEK MEDICINE. By Fred B. Lund, M.D., Boston, Mass. With seven illustrations. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers. 1936. Price \$2.00.

MEDICAL UROLOGY. By Irvin S. Koll, B.S., M.D., F.A.C.S., Attending Urologist, Michael Reese Hospital. With ninety-two text illustrations and six color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$5.00.

WHAT IT MEANS TO GROW UP. A Guide in Understanding the Development of Character. By Fritz Kunkel, M.D., Translated by Barbara Keppel-Compton and Hulda Niebuhr. New York: Charles Scribner's Sons. 1936. Price \$2.00.

DR. BETTERMAN'S DIARY for the Years 1868-1873-1893-1909-1910. Collated from the Old Doctor's journals and edited by Charles Elton Blanchard, M.D., Editor, The Bulletin of Office Practice. Youngstown, Ohio: Medical Success Press. 1937.

THE CARDIAC GLYCOSIDES. A series of three lectures delivered in the College of The Pharmaceutical Society of Great Britain under the auspices of the University of London. By Professor Arthur Stoll, D.Sc., M.D. (honoris causa). Twenty-Three Bloomsbury Square, London, W. C. 1: The Pharmaceutical Press. 1937.

PREOPERATIVE AND POSTOPERATIVE TREATMENT. By Robert L. Mason, A.B., M.D., F.A.C.S., Assistant in Surgery at the Massachusetts General Hospital. Illustrated. Philadelphia: W. B. Saunders Company. 1937. Price \$6.00.

A HANDBOOK OF AMBULANT PROCTOLOGY. Offering the Latest Developments of Methods and Technique for Doing Proctologic Work by Office Methods. By Charles Elton Blanchard, M.D. Youngstown, Ohio: The Medical Success Press. 1937.

WHY WE DO IT. An Elementary Discussion of Human Conduct and Related Physiology. By Edward C. Mason, M.D., Ph.D., F.A.C.P., Professor of Physiology, University of Oklahoma School of Medicine, Oklahoma City. St. Louis: The C. V. Mosby Co. 1937. Price \$1.50.

SENILE CATARACT. Methods of Operating. By W. A. Fisher, M.D., F.A.C.S., Chicago, Illinois. Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College, etc. One hundred and fifty pages and 181 illustrations. Chicago: The H. G. Adair Printing Co. 1937.

DIETETICS FOR THE CLINICIAN. By Milton Arlanden Bridges, B.S., M.D., F.A.C.P., Director of Medicine, Detention, Rikers Island and West Side Hospital, New York, etc. Third edition, thoroughly revised. Philadelphia: Lea & Febiger. 1937. Price \$10.00.

A HAND-BOOK OF OCULAR THERAPEUTICS. By Sanford R. Gifford, M.A., M.D., F.A.C.S., Professor of Ophthalmology, Northwestern University Medical School, Chicago, Ill., etc. Second edition, thoroughly revised. Illustrated with sixty engravings. Philadelphia: Lea & Febiger. 1937. Price \$3.75.

PRINCIPLES OF CHEMISTRY. An Introduction Textbook of Inorganic, Organic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry. With Laboratory Experiments. By Joseph H. Roe, Ph.D. Fourth edition. St. Louis: The C. V. Mosby Company. 1936. Price \$2.75.

THE OCULAR FUNDUS IN DIAGNOSIS AND TREATMENT. By Donald T. Atkinson, M.D., F.A.C.S., Consulting Ophthalmologist to the Santa Rosa Infirmary and the Nix Hospital, San Antonio, Texas, etc. With 106 illustrations including 58 colored plates. Philadelphia: Lea & Febiger. 1937. Price \$10.00.

MATERIA MEDICA, TOXICOLOGY AND PHARMACOGNOSY. By William Mansfield, A.M., Ph.D., Dean and Professor of Materia Medica and Toxicology, Union University, Albany College of Pharmacy, Albany, N. Y. With 202 illustrations. St. Louis: The C. V. Mosby Company. 1937. Price \$6.75.

OPHTHALMOSCOPY, RETINOSCOPY AND REFRACTION. With New Chapter on Orthoptics. By W. A. Fisher, M.D., F.A.C.S., Chicago, Illinois. Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College, etc. Fourth revised edition. With 240 illustrations, including twenty-four colored plates. Chicago: H. G. Adair Ptg. Co. 1937. Price \$2.00.

CONTRIBUTIONS TO THE MICROSCOPIC ANATOMY OF THE PANCREAS. By Paul Langerhans (Berlin, 1869). Reprint of the German original with an English translation and an Introductory Essay. By H. Morrison, M.D. Baltimore: The Johns Hopkins Press. 1937. Price \$1.00.

HISTOLOGICAL TECHNIC. A practical handbook for the workers in histology or histopathology laboratories, which describes in compact form, improved methods for the preparation of microscopical sections. By Aram A. Krajian, Department of Pathology, Los Angeles County General Hospital. Los Angeles, California. 1936.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Lectures and Especially Prepared Original Articles. By leading members of the Medical Profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. Volume I. Forty-seventh Series, 1937. Philadelphia: J. B. Lippincott Company. 1937.

LIGHT THERAPY. By Frank Hammond Krusen, M.D., Associate Professor of Physical Medicine, The Mayo Foundation, University of Minnesota; Head of the Section on Physical Therapy, The Mayo Clinic. Forty-two illustrations. Second edition revised and enlarged. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers. 1937. Price \$3.50.

THE THYROID AND ITS DISEASES. By J. H. Means, M.D., Jackson Professor of Clinical Medicine, Harvard University, and Chief of the Medical Services, Massachusetts General Hospital. Being an account based in large measure on the experience gained in the Thyroid Clinic of the Massachusetts General Hospital. Philadelphia: J. B. Lippincott Company. 1937.

INTERNATIONAL CLINICS. A quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession Throughout the World. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Maryland. Volume LV. Forty-Sixth Series, 1936. Philadelphia: J. B. Lippincott Co. 1936.

CLINICAL LABORATORY DIAGNOSIS. By Samuel A. Levinson, M.S., M.D., Director of Laboratories, Research and Educational Hospitals, Chicago, Illinois, etc., and Robert P. MacFate, Ch.E., M.S., Assistant Director of Laboratories, Research and Educational Hospitals, Chicago, Illinois, etc. Illustrated with 144 engravings and thirteen plates. Philadelphia: Lea & Febiger, 1937. Price \$9.50.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES. By Paul Titus, M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to the Homestead Hospital, Homestead, Pa., etc. With 314 illustrations including four color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$8.50.

OUR CHILDREN IN A CHANGING WORLD. An Outline of Practical Guidance. By Erwin Wexberg, M.D., Professor of Neuro-psychiatry, Louisiana State University; Director, New Orleans Institute for Child Guidance. With Henry E. Fritsch. New York: The Macmillan Company. 1937. Price \$2.00.

PHYSICAL THERAPEUTIC METHODS IN OTOLARYNGOLOGY. By Abraham R. Hollender, M.D., F.A.C.S., Associate in Laryngology, Rhinology and Otolaryngology, University of Illinois College of Medicine; Fellow of the American Academy of Ophthalmology and Otolaryngology. With 189 illustrations. St. Louis: The C. V. Mosby Co. 1937. Price \$5.00.

MATERNITY AND POSTOPERATIVE EXERCISES, In Diagram and Words. By Margaret Morris, C.S.M.M.G., In Collaboration with M. Randell, S.R.N., S.C.M., T.M.M.G. (Twenty-one exercises). Introduction to Maternity Exercises by Professor R. W. Johnstone, C.B.E., M.D., F.R.C.S.E., F.C.O.G. Introduction to Postoperative Exercises by Professor John Fraser, M.C., M.D., F.R.C.S.E. New York: Oxford University Press. 1936. Price \$2.00.

DIABETES. A Modern Manual. By Anthony M. Sindoni, Jr., M.D., Chief of the Diseases of Metabolism at the St. Agnes Hospital, Philadelphia, etc. Introduction by Morris Fishbein, M.D., Editor Journal of the American Medical Association. With a Foreword by George Morris Piersol, B.S., M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Abington, Pa. New York: McGraw-Hill Book Company, Inc. 1937. Price \$2.00.

THE DISEASES OF INFANTS AND CHILDREN. By J. P. Crozier Griffith, M.D., Ph.D. Emeritus Professor of Pediatrics in the University of Pennsylvania; Consulting Physician to the Children's Hospital for Children, etc., and A. Graeme Mitchell, M.D., B. K. Rachford Professor of Pediatrics, College of Medicine, University of Cincinnati; Director of the Children's Hospital Research Foundation, etc. Second edition revised and reset. Philadelphia: W. B. Saunders Company. 1937. Price \$10.00.

HANDBOOK OF ORTHOPAEDIC SURGERY. By Alfred Rives Shands, Jr., B.A., M.D. Associate Professor of Surgery in charge of Orthopaedic Surgery, Duke University School of Medicine, and Chief of the Orthopaedic Service, Duke Hospital, Durham, North Carolina, etc., In Collaboration With Richard Beverly Raney, B.A., M.D., Instructor in Orthopaedic Surgery, Duke University School of Medicine. With 169 illustrations. St. Louis: The C. V. Mosby Company. 1937.

SYNOPSIS OF PEDIATRICS. By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by T. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine, and Assistant Pediatrician to the St. Mary's Group of Hospitals. Second edition. St. Louis: The C. V. Mosby Company. 1937. Price \$4.00.

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RESPIRATORY ALLERGY

DIAGNOSIS AND TREATMENT

HERBERT J. RINKEL, M.D.

KANSAS CITY, MO.

The title of this paper suggests a comprehensive review of the subject of respiratory allergy but only the quiddities of the etiology of hay fever and asthma and the treatment of pollinosis will be discussed.

SEASONAL HAY FEVER

The therapeutic problem in seasonal hay fever, in common with all other allergies, is invariably complex and dependent upon an accurate diag-

one will avoid confusion and conflicting statements if the discussion is limited to that group of patients in whom symptoms have been entirely controlled or, if symptoms occur occasionally, the specific cause for their occurrence is known and demonstrable. Therefore it is felt that the findings in a small group of such patients will give a more reliable index to the etiology than would an analysis of a large series of patients with good or excellent relief although diagnosis was not specific.

In order to indicate the skin sensitizations to inhalants and the proved food sensitivities in pollinosis a group of fifty patients, twenty-five children and twenty-five adults was studied. The essential findings are given in table 1.

Table 1. *Pollinosis*

Allergen	Skin Reactions Obtained	Minimum Number of Skin Reactions	Maximum Number of Skin Reactions	Total	Average	Proved Food Sensitization
Pollen	50	3	32	834	16.6	
Animal Dander	49	1	13	319	6.3	
Foods	48	1	39	786	15.7	186

nosis for good results. While the seasonal nature of the disease proclaims the primary etiological agent, the patient who fares best is the one whose doctor evaluates the disease in the light of all possible causative factors and does not at any time consider it a simple disease to be simply treated.

There is little doubt but that fall hay fever is still thought of as a pollen disease syndrome, primarily if not wholly, due to ragweed pollen.

Treatment, therefore, has been the administration of a ragweed extract to the patient sensitive to ragweed pollen and who had hay fever from August 15 until frost. Naturally this plan of treatment was beset with many failures. In the attempt to explain "failure" in the treatment of pollinosis, many new and helpful facts have been discovered, chief of which is the diversity of the etiological factors in hay fever.

In evaluating the nature of an allergic disease

ETIOLOGY OF POLLINOSIS

In the fifty cases there were ten patients whose symptoms began in May, five in June, one in July and thirty-four gave typical histories of ragweed pollinosis.

Pollen.—It will be noted that there was an average of over sixteen pollen reactions to each patient and that in some patients thirty-two reactions were obtained.

Pollen giving skin reactions may be classified, (1) on the basis of its relationships to the production of symptoms into the primary or secondary groups and, (2) on the basis of its concentration in the air into the major (abundant) and minor (scarce) groups.

By primary factors one refers to those pollens which are capable by themselves of initiating pollinosis in a given individual. They are the pollens identified with the various hay fevers, for instance, grass hay fever, pigweed hay fever, thistle hay fever and ragweed hay fever.

It is to be emphasized that, because of the different seasons in which plants pollinate and the variation of their incidence in each locality, pollens are either primary or secondary according to the degree of the patient's sensitizations to each and not by virtue of any inherent factor in the pollen itself.

Whether the pollen belongs to the major (abundant) or to the minor (scarce) group, it may be either a primary or a secondary factor in the causation of hay fever although, for the most part, the primary pollen belongs to the major group.

The major pollen group includes the ambrosias, the amaranths, the chenopods, the grasses and the trees.

A secondary pollen is one which produces a skin reaction but is not capable of inducing hay fever symptoms by itself. This division of pollen into the primary and secondary groups is more apparent than real. Many patients considered secondarily sensitive to grasses and pigweed do have mild symptoms from this pollen which are overlooked.

The problem of the consideration to be given in the therapeutic program to all pollen producing skin reactions is one of considerable importance. In brief it may be said that some men ignore all but the primary pollen in the treatment of hay fever while others use every pollen to which the patient reacts and which is present in the community during the hay fever season.

Food.—Possibly the most important group of the complicating etiologic factors is food as has been emphasized by Eyermann¹ and others.² There are three possibilities concerning food as a precipitating cause of hay fever. First, it may be a food which is seasonal and taken only at the time of pollination but which would produce hay fever if taken any time in the year. This is relatively rare. Second, it may be a food which is eaten with impunity except during the pollen season when it will initiate symptoms following each ingestion or, if symptoms be present at the time of ingestion, will produce an exacerbation of them. Third, there are certain foods which produce mild unrecognized symptoms perennially whose effect is increased in the pollen season. Studies concerning food as a secondary factor in seasonal hay fever will be given in detail.

It will be seen in table 1 that there were 186 proved food sensitizations in fifty patients with hay fever, an average of 3.7 food allergies per patient. Food was a proved factor in all except four of these patients, three of whom were children less than 10 years of age.

The important consideration here is not that the patients averaged any certain number of

food sensitizations but that allergy to food in seasonal hay fever patients occurred in such a high percentage of cases as to make it necessary to study this etiologic factor in every patient.

I have previously shown³ that the disease pattern of a hay fever patient who was receiving "good results" by pollen therapy was determined by the diet and not by the amount of pollen in the air. Naturally the disease pattern could have been molded by some inhalant or other sensitization as well as by the foods. The important point is that the symptomatology did occur in direct relation to specific foods and that 80 per cent of the total symptoms noted each day occurred within two hours following the ingestion of foods which were known to precipitate hay fever.

The preparation of a compatible diet for the hay fever patient is not an easy problem. The efficacy of the skin test for foods has been found to be approximately 50 per cent, therefore, it cannot be depended upon exclusively. For this reason a patient has to be observed through one hay fever season and accurate diet records kept in order to determine the compatible foods or some other method of testing must be devised. In the fall of 1934 observations on the postingestive leukocyte response were made on a hay fever patient for the first time. These observations were repeated after frost when the foods could be taken without the production of symptoms and were made once again in May of 1935. It was found that the postingestive leukopenia was proportional to the incidence of the food in the diet and not related to the pollen season. It was, therefore, considered feasible to use this test to prepare a compatible diet. This work has been reported in full elsewhere.⁴

The clinical effect of a compatible diet was as follows: The severe paroxysms were eliminated, the profuse discharge of mucus disappeared, attacks coming in the evening around 8:00 or 9:00 o'clock disappeared as did the tendency toward severe paroxysms in the middle of the night. Some of the patients who had had only fairly satisfactory relief had splendid results. However, perfect results were obtained in only one patient and in the other patients there was mild hay fever which was subsequently found to be due to minor pollen and not related to ragweed or the diet.

It was found that such food tests were of great value to the patient and that when they were properly performed and correctly interpreted a compatible diet could be determined preseasonally and much better results could be obtained the first season. The amount of time and work required to make these tests eliminated them as a routine diagnostic measure.

The dietary problem in seasonal hay fever may be summed up as follows: Diet is a factor in all but a small per cent of patients; tests for food either by scratch or intradermal methods are not over 50 per cent diagnostic; the leukopenic index or digestive leukocyte response can be used to determine preseasonally a compatible diet but it is not a practical procedure owing to the time required for testing.

Thus, the dietary factor must be analyzed for the average case during the first season's treatment, a procedure greatly aided by dietary records. Since diet affects the majority of seasonal hay fever patients the diagnosis of food sensitivities is a necessity and no patient should be treated unless this has been done. There is one other relation of diet to treatment of seasonal hay fever that should be emphasized: Diet is a frequent cause of systemic reactions during treatment. Eyermann⁵ was the first to report this. In any patient in whom the pollen dose cannot be increased, the probability of a complicating food sensitization should be investigated.

Animal Dander.—These extracts gave skin reactions in every instance, varying from two to thirteen reactions in different patients. Whether a patient was actually sensitive to some inhalants, as for instance feathers, was not definitely determined. These factors were eliminated solely upon the basis of the skin reactions and no attempt was made to prove clinical sensitizations. Hence, we speak of "skin reactions" and not proved sensitizations.

SELECTION OF A THERAPEUTIC PROGRAM

The original plan of treatment for seasonal hay fever was to desensitize the patient to the primary pollen. There may be three or four primary pollens. Subsequently, due to failures with this plan of therapy patients were treated with both the primary and secondary pollen. Still later, owing to failure and ineffectiveness of such treatment, other procedures were added, namely, elimination of the animal danders and dust and avoidance of certain food, etc. This procedure has been developed to a relatively satisfactory state. There are still divergent opinions in regard to the use of multiple pollen in treatment.

There are several clinical problems pertaining to the treatment of pollinosis which should be reviewed before discussing a therapeutic approach to this disease syndrome. These are: Small coseasonal doses are highly effective in certain patients. Some patients respond splendidly year after year to treatment with only ragweed, or possibly ragweed and grass, while others do so only for one or two seasons. In the last four years no patient whose symptoms continued after receiving .03 cc. of a 5 per cent

ragweed extract, was relieved by a subsequent increase of the dose to as much as .50 cc. of the same extract. Except for a small percentage of the patients the symptom pattern of the disease only roughly follows the pollen concentration after the season is well established. The answer to these problems must be considered in the treatment of all patients with pollinosis.

Biederman⁶ has reported that patients skin sensitive to many pollens but having symptoms in only one season, as grass and pigweed reactions in a patient with a clear cut history of ragweed hay fever, tended to become sensitive to these secondary pollens after being treated with the primary one. This continual development of new sensitizations is a factor which must be evaluated in the treatment of pollinosis. True enough it does not occur in all patients, but it does happen with sufficient frequency to warrant the inclusion of all skin reactors in hyposensitization providing the pollen actually exists in the patient's community. Biederman's experience, that the use of these secondary reactors in treatment prevented the development of new clinical hay fever symptoms, has been corroborated in our practice. There is one significant additional fact, i. e., the variety of these secondary reactors may be diverse and they do include the minor groups.

Small coseasonal doses have been effective in our experience in patients whose diagnosis has been correct. A patient sensitive only to ragweed will have splendid results with coseasonal ragweed therapy without any other therapeutic measures.

In patients whose symptoms were not relieved by an increase of the pollen dose, it has been found that there were complicating factors either in the form of pollen, foods, animal danders or dusts not originally diagnosed. Therefore, it has become the rule that if a patient is not receiving relief with a dose which ordinarily relieves patients in that community, one should look elsewhere than to primary pollen therapy for results. The answer to this problem is sensitization to other pollen, dusts, molds, animal dander and foods.

Anderson⁷ has found that small doses of pollen extract are sufficient. Previously I³ have indicated the necessary doses for relief in the Kansas City area in terms of a known pollen concentration in the air. Feinberg and Durham⁸ have indicated the variability of pollen concentrations, thus showing the necessity for an exact knowledge of the pollen in the air during each season rather than dealing in generalities when one is using a small pollen dose.

Ellis⁹ has reported upon the effectiveness of multiple pollen therapy. Since 1929 I have used in treatment all major pollens to which the pa-

Table 2. *Comparative Study of Skin Reactions and Proved Food Sensitizations in 75 Children and 75 Adults*

	Asthma Children—Adults		P. N. Allergy Children—Adults		Pollinosis Children—Adults		Total	Percentages Children—Adults	
Animal Dander	271	162	198	150	173	146	1100	58. %	42. %
Pollen	534	437	468	310	443	391	2583	55.9%	44.1%
Foods	508	325	408	440	396	390	2467	53.1%	46.9%
Skin Reactions to Foods Found to Be Etiologic	65	56	43	66	31	41	302	46. %	54. %
Total Proved Food Sensitizations	228	292	149	196	77	109	1051	42.2%	56.8%

tient gave skin reactions and which were pollinating in his community during his hay fever seasons. During the last two years I have used every pollen to which the patient has given skin

reactions and which pollinate in the patient's locality during his seasonal disease. The results have warranted the extra trouble and expense. In summation, it seems that a plan of treat-

Table 3. *A Comparison of the Skin Reactions and Proved Food Sensitizations in 50 Adults and 50 Children With Respiratory Allergies*

CHILDREN									ADULTS										
Case No.	Age	Duration of Symptoms	Month of increase of Symptoms	Skin Reactions					Total Proved Sensitizations to Foods	Case No.	Age	Duration of Symptoms	Month of increase of Symptoms	Skin Reactions					Total Proved Sensitizations to Foods
				Animal Dander	Pollen	Total	Proved Etiologic	Food						Animal Dander	Pollen	Total	Proved Etiologic	Food	
1	3	2	0	4	1	15	3	11		1	16	10	8	8	14	7	0	0	
2	3	1	0	4	5	20	1	1		2	16	3	8	12	41	37	1	1	
3	3	2	10	4	18	25	4	13		3	17	16	5	7	22	2	0	6	
4	3	2	0	6	2	2	0	1		4	17	5	7	9	23	18	2	3	
5	5	2	8	7	10	19	1	8		5	19	2	7	11	19	2	1	0	
6	5	4	2	6	3	56	5	10		6	21	5	3	12	41	22	5	10	
7	5	2	0	8	10	18	1	4		7	22	6	5	6	21	21	4	6	
8	5	1	9	7	12	3	0	0		8	23	20	7	3	6	29	2	8	
9	5	3	0	5	8	11	3	16		9	23	3	5	12	14	20	6	8	
10	5	4	10	10	19	5	2	5		10	24	10	8	9	20	21	6	15	
11	6	4	9	6	14	8	1	4		11	25	1	2	10	7	28	1	4	
12	6	2	5	5	6	7	1	6		12	28	5	0	6	5	19	2	2	
13	6	4	9	10	18	22	8	12		13	30	42	0	4	8	30	2	10	
14	6	3	9	5	16	22	1	1		14	32	10	5	9	15	29	1	6	
15	6	2	9	10	47	3	0	3		15	32	5	5	12	21	48	22	27	
16	6	2	8	4	7	13	3	4		16	33	8	8	7	9	9	0	7	
17	6	2	7	4	7	14	3	7		17	33	8	0	7	7	17	2	3	
18	6	1	2	2	21	19	0	0		18	35	20	2	2	5	17	6	18	
19	7	6	11	6	14	24	1	4		19	35	10	11	6	6	10	0	17	
20	7	6	2	5	8	24	3	4		20	35	18	0	1	1	4	2	16	
21	7	2	2	2	6	22	10	13		21	35	5	0	7	3	14	0	8	
22	7	4	8	6	16	8	1	4		22	36	3	9	0	8	6	16	24	
23	7	4	8	5	13	18	0	0		23	36	9	7	12	18	28	8	24	
24	8	2	5	8	10	8	0	0		24	37	1	7	10	7	29	0	6	
25	8	5	7	8	14	18	5	9		25	37	5	0	6	30	0	5	25	
26	8	7	0	5	7	11	0	5		26	38	3	5	8	24	7	2	13	
27	8	3	7	10	11	13	4	15		27	38	14	8	12	20	50	2	2	
28	8	2	9	8	13	21	2	2		28	38	1	2	8	6	18	1	9	
29	8	3	0	6	12	21	0	1		29	38	8	0	9	10	18	6	24	
30	8	1	0	5	4	11	2	6		30	40	2	2	11	36	21	2	9	
31	9	2	0	5	9	11	1	12		31	40	18	0	0	0	30	10	21	
32	10	5	9	5	11	19	3	11		32	43	5	0	12	11	9	0	19	
33	10	5	5	8	20	16	0	0		33	45	6	0	9	10	13	13	26	
34	10	4	9	2	8	10	2	2		34	46	9	8	8	11	13	1	14	
35	10	6	0	5	7	10	1	1		35	46	3	0	6	10	2	0	21	
36	10	6	8	5	7	9	1	1		36	47	1	0	10	17	18	2	3	
37	10	5	6	8	12	16	2	22		37	47	64	2	11	23	27	1	2	
38	10	6	5	12	28	26	2	5		38	48	19	8	3	17	18	4	19	
39	10	2	7	8	15	16	0	4		39	48	18	9	7	6	35	4	6	
40	11	1	5	6	7	17	3	4		40	48	3	0	11	13	27	2	2	
41	11	8	7	6	12	38	2	5		41	49	2	8	8	16	13	1	5	
42	11	5	8	5	8	25	1	1		42	50	25	4	9	14	10	1	2	
43	11	4	8	10	17	13	1	2		43	50	2	0	9	21	29	2	38	
44	11	1	9	10	8	16	1	3		44	51	5	8	12	14	19	0	0	
45	12	11	0	6	7	3	2	8		45	52	7	10	10	9	27	8	16	
46	12	10	9	14	12	50	2	2		46	55	3	0	3	7	4	3	8	
47	12	9	8	12	11	10	1	3		47	56	20	0	0	0	30	5	5	
48	13	11	2	7	22	12	2	7		48	60	38	2	9	24	18	2	6	
49	13	10	8	6	19	10	2	3		49	60	3	9	10	9	9	1	12	
50	15	5	6	10	35	17	2	5		50	65	15	8	6	24	12	2	11	
Tot.				332	627	853	96	270						389	703	944	169	537	
Avg.				6.6	12.5	17.0	1.9	5.4						7.7	14.0	18.8	3.3	10.7	

ment should be recommended which does not call for massive doses but for specific treatment in moderation together with a complete diagnosis of complicating sensitizations other than pollen.

In our hands, results of treating pollinosis have been improved by a detailed study of the importance of animal danders, dusts, all pollen reactors and most of all by the realization that food is a frequent complicating factor in hay fever. Pollinosis is probably the most highly individualized disease in medicine and must be so treated.

THE ETIOLOGY OF RESPIRATORY ALLERGY

Numerous references in the literature indicate that food is more frequently a cause of symptoms in respiratory allergies in children than in adults. This contention has recently been studied in seventy-five children and seventy-five adults with three common forms of respiratory allergy. The essential findings are given in table 2.¹⁰

An analysis of this table indicates that the children consistently exceeded the adults in their ability to give skin reactions but that the adults were sensitive to more foods. These figures are based upon skin reactions in the case of the inhalants and upon skin reactions and proved allergies in the case of the foods. The findings in this series of patients was of such interest that an additional 100 cases have been summarized in table 3.

These patients had mixed allergies, that is, they were subject to more than one manifestation of respiratory allergy, but most of them came for treatment because of asthma.

Whether the higher average of food sensitizations in the adults is due to a general increase of food allergy or to occasional cases of multiple sensitivity is studied in table 4.

In this series of 250 patients it was found that there were approximately twice the number of adults as children with multiple food allergies.

It would seem from an analysis of table 3 and our previous study¹⁰ of the three respiratory allergies, asthma, pollinosis and perennial nasal allergy, that there is little essential difference as far as etiology is concerned in these two age

groups. An analysis of the findings is given in table 5.

Table 5. Analysis of Total Number of Skin Reactions and Proved Food Allergies in 250 Patients With Respiratory Allergy

Subject	Number	Percentages	
		Children—	Adults
Animal Dander	1821	53.4%	46.6%
Pollen	3913	52.8%	47.2%
Foods	4264	50.8%	49.2%
Skin Reactions to Foods Found to Be Etiologic	567	41.4%	58.6%
Total Foods	1858	38.9%	61.1%

Of this series of patients, 150 were previously reported as a group of clinically controlled cases of respiratory allergy equally divided between children and adults. The remaining 100 patients are not clinically controlled cases of respiratory allergy but this would not affect the analysis of the skin reactions. The figures on food sensitization would be subject to change as the patients became free of their symptoms. The percentages are slightly different in the two instances. The per cent of etiologic foods which gave skin reactions was 47.7 per cent for the clinically controlled group of children and 45.9 per cent for the entire group. Again, 43.2 per cent of the total proved sensitizations to food occurred in children of the clinically controlled group whereas, in the larger series, this figure was reduced to 38.3 per cent. Neither of these differences are of great practical importance since the consideration of value here is that the etiologic factors in adults and children are not radically different. If any conclusion were to be drawn it would be that food was relatively more important in the adult.

CONCLUSIONS AND SUMMARY

1. The etiologic factors in pollinosis are as diverse as in perennial nasal allergy and asthma and include foods, dusts, molds and animal danders as well as pollen. Therefore, the patient with hay fever should be subjected to as careful a diagnostic survey as is made in other forms of respiratory allergy.
2. Pollens giving skin reactions are classified as primary if they are able of themselves to initiate symptoms, and secondary if they produce skin reactions but do not precipitate symp-

Table 4. Comparative Study of Number of Food Allergies in 125 Children and 125 Adults

Syndromes	Children—Adults		Number of Proved Food Allergies		Children—Adults	
	0-5	6-10	Children—Adults	11 or more	Children—Adults	11 or more
Asthma	8	8	8	4	9	13
P. N. Allergy	12	14	12	5	1	6
Pollinosis	22	19	2	3	1	3
Mixed Respiratory Allergies	34	15	7	14	9	20
Total	76	56	29	26	20	42

toms by themselves. Pollen may be classified into the major (abundant) and minor (scarce) groups according to their prevalence in each community. The determining factor of the first classification is the patient's degree of sensitization. Variations in the second category occur due to geographic and seasonal factors, thus, individualizing the patient and the pollen season.

3. The selection of pollen for treatment has not been sufficiently studied to state definite rules. The preponderance of evidence in our own experience points to the necessity of using all the pollens to which the patient reacts and which pollinate in the patient's community during the term of his pollinosis.

4. The incidence of food as an etiologic factor in hay fever is sufficiently high to warrant the study of food allergy in every instance.

5. A comparison of the etiology in clinically controlled cases of respiratory allergy has been given. There is little essential difference between the various forms of allergy in terms of variety of allergens.

6. A survey of 250 patients equally distributed between children and adults does not support the assumption that food is an etiologic factor in the child more often than in the adult. In fact, the reverse seems to be true.

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HYPERINSULINISM ASSOCIATED WITH CALCIFIED TUMOR ON THE PANCREAS WITH SURGICAL CURE

S. F. Herrman and John A. Gius, Tacoma, Wash. (*Journal A. M. A.*, April 24, 1937), cite a case of hyperinsulinism of a marked degree associated with a pancreatic calculus without gross adenomatous islet tissue. The fact that clinical cure followed surgical removal seems to establish the etiologic relationship. It is possible, however, that tumor tissue of microscopic proportions was destroyed at operation. On the other hand, the mechanism of the production of hyperinsulinism on the basis of a seemingly inert foreign body in the head of the pancreas has not been adequately explained on a physiologic basis. This subject is to be investigated further. The tumor was a calcareous mass, which could not be sectioned. No pancreatic tissue was found by the pathologist. Soft tissue surrounding the stony mass consisted of fat, connective tissue and several small lymph nodes. There seems to be an analogy between adenomas of the pancreas and of the thyroid. Both become calcareous and both may be associated with hyperfunction.

FOOD ALLERGY IN INTERNAL MEDICINE WITH SPECIAL REFERENCE TO PAROXYSMAL TACHYCARDIA AND ESSENTIAL HYPERTENSION

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The diagnosis of food allergy is dependent mainly on the recognition of the hypersensitive condition of the individual and on the appreciation of the possibility of allergy as a fundamental cause of disease. Although isolated instances of food allergy have been recognized for many years, the actual scope of this fascinating subject and its ultimate influence on medicine is not appreciated yet, nor is it likely to be until more of the possibilities of food sensitization are generally recognized and the method of study ceases to be regarded as a fad and is accepted as a fact. Unfortunately, development in allergy has been left largely to the specialist in this field and enthusiasm which has been aroused in these workers has in a way been responsible for casting a shadow of doubt in the minds of others. The specialist is forced by circumstances to devote the major portion of his efforts to the management of the more obvious types of allergy such as hay fever, asthma and perennial vasomotor rhinitis and therefore misses the opportunity to observe the allergy encountered in general medicine which, although common in everyday life, is so often misnamed or wrongly diagnosed because of one or more of its multiple symptoms. Food allergy has the faculty of causing symptoms which appear to be the main feature of a condition or disease while obscuring the actual fundamental cause.

Allergy in itself is not a new thing although the name is of comparatively recent date. It is merely the ability of foods to produce unusual symptoms in the sensitive person. Allergy is not a catch-all for any and all illnesses of unknown or disputed etiology but, by taking advantage of its peculiarities, many illnesses heretofore so regarded have been recognized and controlled. Food allergy also is a superb mimic and has the capacity of reproducing the entire symptomatology of practically any organic disease. Although it is not possible to present the subject of food allergy in anything like a complete form, a few of the proved possibilities and a few new conditions which have been associated with various gastro-intestinal allergies and which have yielded to treatment will be discussed.

Gastro-intestinal allergy is merely a symptom

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complex produced by the response of the mucosa and the smooth muscle of the gastro-intestinal tract to a food or foods to which the individual has become sensitized. The reaction is quite similar to those reactions which are called urticaria when they occur on the skin and when they occur in the bronchi are called asthma. The reactions are much more common than is appreciated, which is not surprising when it is considered that the gastro-intestinal tract throughout its entire course is in intimate contact with foods. It has occurred to me that when an allergy of one system of organs has been controlled, as a rule, the allergies of other organs or systems are also controlled. This may be merely another way of saying that allergies are frequently multiple or that many times a single food expresses itself by symptoms in several organs or tissues at the same time. This is not by any means always true for although egg may cause nausea, pain and sneezing, there are other instances where but one symptom is produced by one food and another symptom by another food. In this connection, the actual recognition of many other types of food allergies has been accomplished through the cessation of varied symptoms encountered in the management of gastro-intestinal allergies. For this reason it does not matter much whether the condition is referred to as nasal allergy, allergic headache, urticaria, asthma or actual gastro-intestinal allergy, as the careful observation of the associated symptoms which have disappeared with the control of any of these symptoms has tended to broaden the field of clinical allergy far beyond the conception that allergy has only such manifestations as asthma and hay fever. By observing that certain types of arthritis, extrasystoles, paroxysmal tachycardia, fever of unexplained origin over long periods of time and essential hypertension as associated gastro-intestinal symptoms not only have disappeared but that many other cases with the above mentioned ailments as a primary cause of complaint with only a remote allergic history have been repeatedly treated successfully by food exclusion and that all original complaints and symptomatology can be reproduced at will by the inclusion of these same foods in the diet, no other methods of treatment being employed, it seems only fair to assume that food allergy must have some etiological influence on these conditions. In other words, if by fair trial a paroxysmal tachycardia of many years standing or a marked hypertension can be controlled by food elimination alone when by other and orthodox methods of treatment the original complaint had been continuing unabated, this type of treatment is not only justified but imperative in giving relief to conditions which not only produce invalidism but

which eventually lead to definite organic disease. There are some diseases which although actually organic can be traced to a food sensitization and the proper recognition and management of them give complete relief; over long periods of time this was not accomplished previously. This is particularly true of peptic ulcer and of angina pectoris associated with low blood pressure.

The importance of diet in the treatment of hay fever has been emphasized by both Eyer-mann¹ and Rinkel.² Both writers maintain that more nearly complete relief can be obtained if foods to which the patient is definitely sensitive are removed from the diet during the season of pollinization. Eyer-mann has stated also that specific food elimination is one factor in the avoidance of systemic reactions. Both of these ideas are in accordance with my own observations. To illustrate the avoidance of systemic reactions the following case is cited.

CASE REPORT

Mr. J. J., aged 45, had been subject to hay fever since the age of 15. The symptoms would appear in May or June of each year and continue until the first heavy frost. The symptoms of lacrimation, sneezing and mucous discharge from the nose were comparatively mild during the spring and early summer but these were not only greatly exaggerated during the months in which the ragweeds pollinate but there was the additional distress of practically constant asthma during this period. This had been so marked that the patient had gone to parts of the country free from the pollens of ragweed during the months of August and September. During the last three years, because of economic conditions, he was unable to continue this practice and treatment was attempted. Attempts at hyposensitization had failed previous to 1936 because he gave the history of having constitutional symptoms of such severe nature after the injections of dilute pollen extracts that he could not obtain adequate protection. Because of the history of extreme sensitivity and also because the skin of this patient reacted to all foods by scratch or intradermal method of testing in about the same degree, it was determined to work out a diet preseasonally by means of the post digestive leukocyte response. This was done and wheat, beef, coffee, citrus fruits, milk and lamb were found to be incompatible. Treatment was instituted in June of 1936 with a dilution of ragweed extract just one tenth as strong as that commonly used for the beginning of treatment. When the dosage was increased to .07 cc. of a 5 per cent extract diluted one hundred and twenty five times there was a constitutional reaction with asthma and the typical symptoms of hay fever, and a local reaction consisting of swelling of the entire upper arm. The incompatible foods were taken from the diet and the dosage of pollen extract was reduced to the last dose which had not produced a reaction, then increased in the usual routine way. There were no more reactions of any sort, there was no asthma during the ragweed season and there was slight nasal symptoms only for seventy-two hours during the peak of pollinization.

Perennial vasomotor rhinitis is commonly an expression of food allergy and the avoidance of

foods which are specific reactors in the individual is just as important as the avoidance of the various inhalant allergens such as insecticides, orris root, house dust, feathers and animal emanations. Foods to which a person has become sensitized not only cause specific symptoms but frequently have a toxic action as well. Allergic children, sensitive to milk, wheat, eggs and citrus fruits make much better progress and have much better health with these presumed necessary foods out of the diets than when taking them. Swelling of the nasal mucosa, mucous discharge and coughing often disappear with the specific elimination of foods, but the immediate improvement in general health seems to indicate that there has been a removal of an underlying toxic condition as well as the removal of definite tissue reactions. It is quite likely that the extension of an allergic reaction from the nasal mucosa into the eustachian tubes is a common cause of middle ear infections in childhood as well as deafness in adult life. It has been possible to restore partially the hearing in one patient with perennial vasomotor rhinitis by food restriction alone. In this case the inclusion of incompatible foods causes an edema and swelling of the nasal mucosa and the eustachian tubes which is easily demonstrated and which is accompanied by definite decrease in the acuity of hearing. The administration of epinephrine after such a test increases the hearing definitely and a strict diet of compatible foods alone controls nasal symptoms and improves the hearing to such an extent that the patient can engage in an ordinary conversation.

Persistent asthma, which is not of the seasonal type such as that encountered during the pollinization of grasses and weeds but is of about the same severity both winter and summer, is usually that of a food sensitization no matter what the age of the patient happens to be. Unfortunately, asthma is frequently an ailment of multiple sensitizations in which inhalant allergens play a part as well as food, and elimination of all factors in an individual sensitization is essential for the successful management of this disease. Asthma in childhood is easier to control than that which appears later in life as the opportunity to acquire sensitizations to diversified diets is more limited. This is true of practically any allergy since the individual becomes sensitive to the foods which are eaten with the most regularity. The removal of specific foods from the diet of an asthmatic not only increases the tolerance to inhalant factors but in time creates a tolerance to foods which originally seemed to be a factor in the causation of asthma. Foods which actually caused an increase in asthma on testing can in some instances be replaced in the diet provided they are

not used with too much regularity. This is well illustrated by the case of a patient who had been having constant asthma and who had been told by several allergists that she was an intractable and intrinsic asthmatic. She came to see me shortly after Rinkel had given me his modification of the digestive leukocyte response in December, 1934, and her entire diet was worked out by this method.

CASE REPORT

Mrs. J. C. D., aged 45, complained of stoppage of the nose, nasal polyps and asthma which was practically constant. The patient had always been well until the spring of 1929 when she developed sneezing, a cough and running of the nose. These symptoms continued rather intermittently until the fall of that year when she developed a cough which persisted for about two weeks and then she began to notice wheezing. This condition persisted for another month before there was actual discomfort from asthma, but there had been almost constant sneezing, blocking of the nasal passages and discharge of mucus. Asthma became severe and incapacitating in the early part of 1930 and in a few months there was practically constant asthma in spite of five to ten injections of adrenalin each twenty-four hours. She was taken to New York for examination as well as to try a change of climate but continued to have the same trouble. After examination there and also in Chicago a few months later without benefit, she returned home. Her daughter, in the meanwhile, had learned to give her adrenalin and administered it to her every day. In the midsummer of 1931 the patient went to Colorado and though she had asthma every day she was better there for two weeks than at any other time since the onset of her illness. At the end of that period the attacks came on again and from that time on she did not remember a single twenty-four hours in which she did not have to have several injections of adrenalin. In the meanwhile she had discovered that aspirin made her asthma worse and that dust of any kind would make her nose stop up and make her asthma worse. There did not seem to be any effect from other contacts such as dog or cat hair or from orris root and insecticides. Breathing through the nose had become almost an impossibility as the nasal passages were blocked almost constantly from swelling and also from polypi. There was no history of allergy in the antecedents but two of her children had definite allergic manifestations, one having eczema and the other hay fever. On examination the nasal mucosa was pale and gray in color with a marked watery discharge. Several nasal polypi could be seen on the most casual examination. The chest was filled with the wheezing rales typical of asthma. The general examination was negative. Skin tests were attempted by both the scratch and intracutaneous method but as enormous reactions were obtained with practically everything tested, it was obvious that no information could be obtained in that way. It was then that food tests by means of the post digestive leukocyte response were done. After many tests of single foods it was found that asparagus, carrot, fish, pork, rice and turnip were the only foods that produced a compatible response and that all others had to be excluded. A diet consisting of these foods alone was instituted in February of 1935 and as a result the patient was free from asthma in five days' time for the first time in five years. After two months of freedom from asthma one food at a time and at intervals of from five to seven days, was added to her diet with

the final result that everything but wheat, milk, egg and potato is now included in her diet. As the asthma improved, the vasomotor rhinitis improved and the nasal polyps have been removed by surgery. Wheat, milk, egg and potato have reproduced asthma on each trial and they are totally excluded from her diet to the minutest detail. The patient has continued to live in the same house, in the same environment and in contact with the same inhalant allergens in complete comfort. There have been two attacks of asthma which were not purposely induced. One came after taking anacin for a headache, the patient not knowing that anacin contained aspirin; the other came after eating a piece of her daughter's wedding cake, for which she can scarcely be censured.

Much has been written on the subject of dyspepsia nervosa and without doubt such a condition exists with a psychosis as the one dominant factor, but with the application of allergic principles of management to this disorder, when there is an allergic history, the entire syndrome has been controlled to such an extent as to make one feel that the majority of the older writers were actually dealing with an unrecognized allergy. It is really remarkable how all indications of nervousness and irritability disappear when the real irritant is removed. Loss of appetite, dizziness, toxemia, nausea, gas and bloating as well as constipation disappear quickly in hypersensitive persons when the specified foods are restricted from the diet.

Typical symptoms of peptic ulcer with the usual seasonal and cyclic recurrence of symptoms, associated with relief from pain by food and alkali, night pain and actual hemorrhages, are frequently encountered which, when they come to operation or autopsy, present no evidence of ulceration either past or present. This pseudo-ulcer condition is not at all uncommon and has been described by Rowe,³ Rinkel⁴ and Gay.⁵ In Rinkel's case the patient had been subjected to four exploratory operations before the actual cause of the symptoms was recognized as a food allergy and the removal of a few foods from the diet restored the patient to health after seven years of needless invalidism. True peptic ulcer is in many instances an expression of a food sensitization on the basis of the Arthus phenomenon. Gay⁶ in November of 1934 reported thirty-three cases of proved peptic ulcer in which he was able to give relief to 70 per cent of the cases by specific food elimination alone. These patients were allowed to eat anything that they chose with the exception of foods to which they had been proved to be sensitive and they were not given medication of any kind. In 1936 Gay⁷ reported six additional cases of proved peptic ulcer in which no attention was paid to the presence or absence of an allergic history and in this series of cases was able, by means of the post digestive leukocyte response, to make a more careful diagnosis of the specific

foods causing symptoms and to give a much higher percentage of relief. It was also found in this study that the reputed lowered free hydrochloric acid values of the allergic individual is a fallacy as the absence of free hydrochloric acid is dependent entirely on the selection as a test meal of a food to which the patient is sensitive, and the use of such a food is accompanied by an excessive flow of mucus which more than likely has a buffer action. The presence of such an excessive amount of mucus as was frequently found is in all probability a protective mechanism, such as occurs in the sensitive nasal membrane during the pollinating seasons, for many times there was a marked increase in ulcer pain shortly after the ingestion of a test food and at the time no free hydrochloric acid could be found. This group of patients was allowed to eat three meals a day of compatible foods and received no medication whatsoever. Although this new method of treating peptic ulcer is entirely unconventional, it has the merit of being an ambulatory treatment, it allows the patient freedom from interval feedings and finally it does give relief and comfort which is particularly welcomed by that group of peptic ulcer sufferers who have failed to find relief from the usual medical and surgical procedures. Fifty-five cases in all have been managed in this way since the inception of the idea that peptic ulcer was an allergic manifestation. Increasing experience with the method has been accompanied by increasing faith in the correctness of the idea.

Food allergy can be responsible for acute abdominal pain with rigidity of the abdominal muscles, fever and leukocytosis. Three such cases were reported by Gay⁸ in 1934 in which the presence of obvious extra-abdominal symptoms of allergy prevented the serious and embarrassing error of advising exploratory operations. Case 2 of that series had two additional identical attacks in which the symptomatology was suggestive of a perforated duodenal ulcer. Another case was observed recently in which the usual drugs employed as postoperative sedatives had the opposite effect and caused an elevation of temperature, distention and abdominal rigidity suggestive of peritonitis although in this instance the abdomen had not been opened. More recently this patient, a known allergic who knew that he was sensitive to citrus fruits, ate an orange while on a trip in the southwest. He had violent symptoms but fortunately they began within thirty minutes after the ingestion of a known allergen. There was increasing discomfort for thirty-six hours and when seen by me at that time, he presented a perfect picture of an acute surgical abdomen with a temperature elevation of 102.4 degrees, pain in the lower abdomen which was markedly increased by pres-

sure over the descending and pelvic colon and much distention. There had been no bowel movement since the onset of the pain but small quantities of gas had been passed from the rectum. As the leukocyte count was only 10,400, and a barium enema showed a marked spasm of the descending colon but failed to show the presence of diverticulae, ephedrine sulphate by mouth was the only treatment employed. Although there was enough relief from this treatment to indicate that the condition was that of an allergy and not an infection, the fever and the pain in lessened degrees continued for several days. Recent re-examination by barium enema has failed to reveal any pathology.

Edema of the mucosa of the gastro-intestinal tract has been responsible for filling defects which might be mistaken for actual pathology. As this can occur in any part of the tract it might be well to re-examine cases with filling defects and a history of allergy at a later date and to administer epinephrine if the defects still persists. Such an experience was reported by me in 1936 and both Rowe⁹ and Andreson¹⁰ have cited similar instances. Spasm of the colon can be either acute or chronic and in the acute form, which is frequently associated with edema, pain can occur in various parts of the abdomen and the condition has been mistaken for almost any type of acute intra-abdominal pathology and exploratory operations have been performed. Instances of this type have been observed by various writers and in 1932 I reported the case of a woman who had been operated on four times because of attacks of acute abdominal pain which was due not only to the ingestion of wheat but which could be relieved or reproduced by the elimination or deliberate feeding of wheat. Chronic spasm of the colon is one of the primary causes of constipation and elimination of food which is indicated by other or associated allergies is adequate treatment for this type of constipation because when the spasm is relaxed the resulting constipation disappears.

Mucous colitis as a manifestation of allergy has been receiving more and more attention in the last few years and our own studies as well as those of Vaughan,¹¹ Hollender¹² and Rowe¹³ place the usually accepted syndrome of mucous colitis in the category of allergic diseases. This is not surprising as mucous colitis is usually associated with some other form of allergy and the mechanisms of colitis, asthma and hyper-sensitive rhinitis are the same from the standpoint of a shock tissue reaction. The presence of mucus means only the colon is attempting to protect itself from the contact or absorption of irritating allergens, and the spasm of the colon and the resulting constipation has been thought to have the same etiology by numerous investi-

gators. Striking relief from all symptomatology, including the nervous manifestations such as have been stressed by the older writers, has been attained many times by the proper elimination of foods.

Idiopathic ulcerative colitis, which is still a matter of considerable dispute as far as etiology is concerned, is at times rather easily managed by allergic methods when other types of treatment have been of no avail. Kern and Schenck¹⁴ have proved repeatedly that nasal polypi are allergic in origin and that allergic treatment will not only prevent the development of new polypi but will cause the disappearance of those present which have not become organized by infection. Gay¹⁵ has reported the control of colonic polypi associated with mucous colitis in one case and undoubtedly there are many other such cases which have not been recognized. In this particular case polypi were so abundant and involved the colon to such an extent that colectomy had been considered and advised. A careful study of the diet and subsequent elimination of symptom producing foods resulted in the disappearance of the majority of the polypi and in a satisfactory clinical cure although some of the polypi remain.

Although the usual impression is that allergic disease is characterized by low blood pressures, this is by no means true and the accidental discovery of this fact opens up a new possibility in the treatment of selected cases of essential hypertension. The following is one of the first cases to be observed.

CASE REPORT

Mrs. W. C. C., a married woman, aged 52 years, was examined on June 13, 1930. She complained of high blood pressure, occasional swelling of the feet and ankles and dyspnea on exertion. She had come to St. Louis twelve years previously because her physician had advised her to leave the high altitude where she had been living as it was his opinion that she had heart disease. During the first year of her residence in St. Louis she became pregnant and her attending physician told her that she had myocarditis, a leaky heart and high blood pressure. She went through a normal pregnancy and had no trouble at the time of delivery. Since that time she had been under the care of a physician most of the time and though she had been fairly comfortable except on overexertion, the blood pressure had remained at the same high level and there had been some recent edema of the feet and ankles. There was no orthopnea and no cough but there had been sensations of pressure in the head. The patient was susceptible to colds and had considerable sneezing and nasal discharge the year round but felt that these symptoms were exaggerated in June or July. There was no nausea and no vomiting but there was abdominal distention and pressure on awakening which became greater as the day progressed. Milk had been suspected as a cause and had been discontinued. The diet was unchosen except for the elimination of milk. The only previous illness had been typhoid at the age of 18. The patient has four children who are living and well with

the exception of one daughter who has hay fever. On examination the arteries were soft and not palpable but the blood pressure was 205/105. The nasal mucosa was a pale gray and covered with a watery discharge. The heart rate was regular; there was a short soft blowing systolic murmur at the apex of the heart which was not transmitted. The aortic second sound was accentuated and the heart was enlarged as shown by physical signs and by fluoroscopy. The lungs were clear. The abdomen, although markedly distended with gas, was not tender and there were no organs palpable. An electrocardiogram showed a slight left axis deviation and an inverted T wave in the third lead but no other abnormalities. The kidney function was apparently normal as the N. P. N. was 33 milligrams per 100 cc. of blood and the total P. S. P. excretion was 65 per cent in two hours. Owing to the history of perennial vasomotor rhinitis, gastro-intestinal allergy and the history of hay fever in one daughter, skin tests were done and as wheat, milk, potato, lettuce, tomato and spinach reacted most strongly, these foods were restricted. After a month of this diet and with no medication the gastro-intestinal symptoms had improved, there was no more dyspnea and the blood pressure had dropped to 155/75. Elimination of feathers and orris root as contacts had improved the nasal condition as well. One month later the patient reported that she was symptom free and at that time the blood pressure was 125/70. Blood pressure readings were taken at frequent and regular intervals for one year and the highest pressure found was 135/75. From 1931 to January, 1936, the patient was seen at rather irregular intervals. She remained comfortable and the blood pressure did not exceed 135/75. In January of 1936 the patient broke her diet absolutely and completely and continued to do so until October of that year. In that month she came in with the history of irregular action of the heart, attacks of rapid beating of the heart lasting from five to fifteen minutes and associated with dyspnea. Her blood pressure was then 210/105. Food tests were repeated by means of the post digestive leukocyte response and milk, beef, pork, corn and wheat were found to be incompatible. These foods were eliminated from the diet and in two weeks' time all symptoms had disappeared and the blood pressure was 140/80. Ten days later the reading was 130/70 and has remained at about that level except when the diet was broken as a deliberate experiment. Wheat and milk cause a return of extrasystoles and paroxysmal tachycardia after these foods have been taken three or four days in succession and it is found that the blood pressure rises from 25 to 35 millimeters of mercury as these symptoms reappear.

Shortly after this case was studied another woman with hypertension and a history of paroxysmal tachycardia extending over a period of thirty years presented herself for treatment. Although she was advanced in years there was no demonstrable organic disease of any consequence but, as in the preceding case, there was a history of hypersensitive rhinitis. The elimination of wheat and coffee in this case not only keeps the blood pressure at a normal level but has controlled the paroxysms of tachycardia completely although they can be reproduced at will by feeding these foods.

Since December, 1934, a series of twenty cases of essential hypertension, in which there was no organic disease demonstrable and in all of whom there was a definite personal history of

allergy, have been studied by means of the post digestive leukocyte response. There were eighteen women and two men in this series, the oldest being 62, the youngest being 28 and the average age was 49. The highest blood pressure encountered was 220/115, the lowest 150/80, the average being 180/90 for the series. Wheat, pork, milk, egg, potato, beef and spinach in the order named were the allergens most frequently found as the actual factors in the maintenance of the hypertension. All of these cases were treated by food elimination alone and nineteen of them have been able to hold a blood pressure level of from 120/65 to 140/80 as an average while following restricted diets conscientiously. There has been one absolute failure in the case of a woman 38 years old. The possibility of allergy as a factor in the treatment of essential hypertension and the excellent results exhibited by this series of cases at least offers some degree of optimism in the care and management of those selected cases of hypertension which have a definite history of an associated allergy.

The methods of arriving at a diagnosis in a suspected case of food allergy include elimination diets, food diaries, skin tests, either scratch or intracutaneous, and the post digestive leukocyte response. Elimination diets are not completely satisfactory as we have found that many of the substitutes for staple foods are common producers of symptoms. Allergic management by food diary alone can be a strenuous affair except in rather simple cases, for when there are many actual allergens interpretation is difficult for both the physician and the patient. Skin testing, although valuable in inhalant allergy, is not a particularly reliable diagnostic method in food allergy as there is a high percentage of false negative and false positive reactions. Although the value of the skin test is strongly supported by numerous investigators, it is much more important to discover what a food does to the organism as a whole than to discover what an extract of that food does to an isolated portion of the skin. The post digestive leukocyte response, correctly carried out and interpreted, reveals this important information in a high percentage of instances. The complete technic and interpretation of the post digestive leukocyte response, which was introduced by Vaughan¹⁶ and modified by Rinkel and Gay,¹⁷ has been published elsewhere and there is no need of discussing the procedure in detail. Foods are classified in this test as compatible, indeterminate and incompatible depending on the type of curve resulting from the leukocyte response. If feasible, the method of choice is to eliminate both the incompatible and indeterminate foods and restrict the diet to compatible foods alone. As a satisfactory clinical improve-

ment ensues the indeterminate foods may be included cautiously, adding but a single food at a time in order to note any symptomatic effect. In this manner it is at times possible to replace the majority of the original indeterminate and incompatible foods in the diet without ill effect, provided they are not taken with too much regularity and the additions are carefully supervised. It is at this time that the food diary is of most value in isolating a food reaction and if used with care, it is of tremendous aid in re-establishing a well balanced diet. A combination of the post digestive leukocyte response and the food diary, although time consuming and tedious, increases accuracy to such an extent as to make it worth while to expend the necessary effort to arrive at a correct diagnosis.

University Club Building.

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DISCUSSION

DR. JOSEPH GRINDON, St. Louis: I wish to endorse the attitude taken by the last speakers in regard to the comparative value of skin tests in food allergies. While at times one gets a valuable indication, much oftener one does not. I remember two young women who came to me, one from St. Louis and the other from Evansville, Indiana. The cases were much alike. They were both what the French call "the true eczematized," that is, those who suffer from allergic dermatitis from infancy. I tried all the skin allergens I had in my office and then sent them to one of our hospitals where we tried a number of other things. The results were that one was negative throughout to everything and the other was positive to everything including the control, both evidently equally misleading.

I will speak of a point which was alluded to by one of the speakers. Why are some persons allergic? What is the etiology of allergy? It used to be called an

idiosyncrasy but that explained nothing. I do not know the cause of allergy but two things may be pointed out: One is that a special allergy to this, that or the other thing is often implanted upon a general allergy, perhaps a development originating in sensitiveness to some one thing. For example, those who have suffered from ivy poisoning are more likely to develop other allergies later in life. Or take a case such as one related by Oppenheim. A certain individual used turpentine to clean his hands after painting and developed a turpentine dermatitis. He was told never to use turpentine again. Two years later the dermatitis returned in the same location. The physician asked if he had had his hands in turpentine and he protested that he had not; but on investigation it was found that he had been sleeping in a room newly painted and that the paint contained arsenic. Further tests showed that the dermatitis in all probability was due to the arsenic which was in the paint. The point is that this later attack which was apparently due to arsenic was at the site where he had had urtentine dermatitis. I cannot think of any two things farther apart chemically than turpentine and arsenic, and yet one prepared the soil for the other.

Another thing which plays a rôle in the production of allergy is an endocrine dysfunction. I am speaking now particularly of skin allergies in children. There is a distribution pointed out by DeWees over one hundred years ago, i. e., lesions occurring about the forehead, cheeks and chin, while the region about the eyelids, nose and lips remained free. Often the wrists are involved, and most important, the flexures of the elbows and the popliteal surfaces. This is the typical distribution in the allergic child. We generally find that the child was considerably overweight at birth and is overweight when it comes to the physician. After the mother, and perhaps the father, has the characteristic build of a hypothyroid-pituitary individual. In the baby's face you can make out the same characteristics. It is at least a mild hypothyroid. I feel sure that that is a predisposing factor. Our practice, besides seeking for the allergies in these cases, is to put the babies on small doses of thyroid, beginning with one tenth grain of the Parke, Davis extract once a day, then twice a day and three times, gradually increasing it. How are we going to tell what is the proper dose for a baby? You cannot get the basal metabolism, but when the mother after a few visits tells you that the baby, formerly a "good" baby is now getting so "mean" that she can do nothing with it, then is the time to take it off thyroid.

DR. LEE PETTIT GAY, St. Louis: I wish to thank Dr. Grindon for his discussion and to say that I certainly agree with him about the possibility of the endocrine system having a great deal to do with allergy. I do not think I have ever seen a true allergic who did not also present symptoms of hypothyroidism.

Dr. W. T. Elam just expressed the opinion that chronic foci of infection should be removed when treating allergic disease. I agree thoroughly with this opinion as in my experience a patient is much better off if chronic infections are removed; the allergy responds to treatment much better than if he is carrying an antrum full of pus, abscessed teeth or infections of that nature. It is important to clean up the infections as our results in general are then much better.

As vocal teachers are dependent on the results they obtain from their students for increased prestige, Robert F. Ridpath, Philadelphia (*Journal A. M. A.*, Aug. 21, 1937), feels that, if the physical condition of their prospective pupil were known, they would have a better chance of producing a singer who would be more worthy of their effort.

THE PROBLEMS OF MENTAL HEALTH

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The two major problems of mental health confronting the medical profession today are: A better understanding of how to prevent the loss of mental health; and a better understanding of how better to aid in the restoration of mental health after it is once lost.

Up to three hundred years ago the average longevity of man was eight years. Today the average longevity of man is fifty-eight years. The medical profession has brought about this result through prevention of disease and better treatment, both medically and surgically, of those who are physically ill.

Let us consider a few of the physical ills that formerly contributed to the enormous death rate of the young which have been almost, if not entirely, conquered by the discoveries of the medical profession. The intestinal disorders of infants which took a toll of millions; smallpox (it is said that before the days of Jenner and his discovery of vaccination the mothers of England never counted their children until after they had had smallpox); diphtheria, before the days of antitoxin; typhoid fever before prevention by sanitation and inoculation was discovered; yellow fever; bubonic plague, and even malaria. And we might add anesthesia and asepsis in surgery. These and many other measures during the last three hundred years have increased the longevity of man from eight to fifty-eight years.

But what has been done to prevent mental ill health with all its suffering and economic loss?

It is interesting to note the varying attitudes of the public toward the insane throughout the centuries. In ancient times they were revered and venerated as prophets and as men set apart. During the first fifteen centuries of the Christian era they were treated as possessed of demons, exorcised and beaten. When the hysteria of witchcraft swept the world many of the insane were treated as witches and punished accordingly. After that hysteria died down the insane were treated as criminals. They were regarded as being deliberately mischievous and stubborn and the treatment considered proper was imprisonment, whipping and brutalizing in many other ways.

Philip Pinel was born in the south of France in 1745. After receiving his degree in medicine he moved to Paris. Being interested in mental ill health he finally became head physician of the Bicetre, and later of the Salpetriere Hospitals in Paris. On May 24, 1798, against the advice of the authorities, he cut the chains from

the insane at Bicetre and treated them as though they were ill, deserving of sympathy and care.

This was the first great innovation in the care of the insane. It is the first known recognition that the insane man or the insane woman is a sick man or a sick woman and should be treated in a proper hospital by competent physicians and cared for by nurses instead of being thrown into prisons and dungeons, chained and beaten and cared for by jailers.

This idea is universally recognized by all civilized people today. Such hospitals are provided by municipalities, states and private individuals and also by our federal government. While there are still some prejudices prevailing against such hospitals, some idea that the insane are abused and brutally treated in these hospitals, it is a well established fact that in all of these various hospitals the insane are competently treated and receive kindly care. There may be, and perhaps are, rare instances of incompetence and unkindness, but this is far from being the rule and such treatment is so rare at the present time that it is almost nonexistent.

At the present time we have a better understanding of how to treat those suffering from mental ill health and the percentage of recovery is much greater than a few years ago.

The Swift-Ellis treatment was the first treatment that offered real hope to the paretic. Later came fever therapy. We are now able to restore many paretics to their former state of normal mind whereas a few years ago the condition was 100 per cent hopeless. Aside from the Swift-Ellis and fever therapy of paresis, no epoch making discoveries have been made in the treatment of mental disorders, but the percentage of recoveries among the insane has quite materially increased during the last quarter of a century.

This result has been obtained through treatment by more competent physicians, better nurses and better hospital facilities. The recovery rate among the pure, uncomplicated manic depressives is practically 100 per cent. There is no specific treatment for this condition. Involuntary psychoses have a fair percentage of recoveries. There are two types of psychoses to which, at the present, we can offer no hope of recovery. I refer to true paranoia and senile dementia.

We are hearing much at the present time about the insulin treatment of dementia praecox. We are hoping that it will prove to be of real value. It has long been known that many and extremely severe cases of the catatonic type of dementia praecox do make apparently complete and full recovery. Professor Bleuler places these recoveries at 20 per cent. I have been able to keep in touch with recovered patients for a period of from fifteen to twenty years. In that

period of time there have been no relapses. The hebephrenic and simple types make symptomatic recovery. We are finding insulin to be very helpful in correcting nutritional defects in all forms of psychoses and in alcoholism.

Some advancement has been made in the treatment of various other forms of psychoses not so common as those mentioned, so the percentage of recovery is greater now than in the past. Some of these psychoses worthy of mention are: Psychoses of epidemic encephalitis and other infectious diseases; alcoholic psychoses; psychoses due to drugs or other exogenous poisons; traumatic psychoses; psychoses of cerebral arteriosclerosis; psychoses of convulsive disorders; psychoses due to metabolic disorders and diseases; psychoses associated with organic changes of the nervous system.

Despite more successful treatment and better care of the patients suffering from mental ill health, the population of our municipal, state, federal and private hospitals receiving and caring for the insane is gradually increasing so there is a demand for more and larger hospitals. At the present time, there are more patients being cared for in so-called mental hospitals than in all other hospitals combined. The answer is that the medical profession is failing to meet the imperative demand that something must be done to prevent the development of mental ill health.

The average doctor does not know nor does he inform himself on how he may prevent the development of mental ill health in the predisposed individuals whom he primarily contacts.

There are two important causes of insanity. These causes are predisposing and exciting. Predisposition to mental ill health may be inherited or acquired. The individual who has inherited predisposition to mental ill health begins life with a brain which has a faulty architecture. It may be faulty in the association of the various areas. There may be nutritional defects. There may be disharmony in the development of the various areas. There may be defects in the development and discharge of nerve energy.

Perhaps in all cases of mental ill health there are some inherent defects and the acquired predisposition is but an accentuation of the inherent brain defects. In other words, the individual who develops a psychosis has a congenitally inadequate brain or, through illness in early life, has acquired an inadequate brain.

An inadequate personality is one which is unable to meet and master the difficult problems of life. Likewise, an inadequate brain is one which is unable to meet and master the problem of intoxication from any cause, nutritional defects or the stress and strain of life.

In my opinion, the two major factors in the development of all psychoses are brain deficiency and nutritional deficiency. In all forms of infectious diseases we have faulty digestion and deranged metabolism resulting in nutritional deficiency. An inadequate brain cannot meet this situation and continue to function normally and, when the brain becomes deranged in function, we have what we call a psychosis due to the intoxication of infections.

In alcoholic intoxication, we have faulty digestion, deranged metabolism and, if the brain be inadequate, we have alcoholic psychoses resulting from a nutritional deficiency. The same condition prevails in drug intoxication. We have nutritional deficiency in arteriosclerotic conditions.

We hear much about stress and strain being a cause of psychoses. Overwork, with worry and anxiety, derange digestion and metabolism and there is in all of these conditions a nutritional deficiency.

It is my observation that in all neuropropsychoses and at the onset of all psychoses there is evidence of nutritional deficiency, in many cases severe with, in the majority of cases, marked dehydration.

In my opinion, the vast army of young men and young woman who break during their school life and develop mental ill health, develop these conditions because they have placed too great a strain upon a poorly nourished, deficient brain.

It is the duty of every physician, insofar as his ability admits, to contribute to the augmentation of health, happiness and efficiency of his public. He should be able to recognize early in life a youngster with an inadequate and inefficient brain. He should know the formula for aiding these individuals to become properly orientated and acceptably socialized, and for assisting them to learn an effective philosophy of living.

He should inform himself so that he has the ability to advise and instruct the parents of such children so that they may be able to protect their children against overstress and overstrain, and also how to correct nutritional defects.

The physician should know how to protect his patient who is suffering from a devastating and debilitating disease from nutritional deficiency of the brain.

There should be a closer relationship between the medical profession and the teaching profession and a better cooperation in the care of the mental health of children. All grade schools should have a medical adviser who is competent to instruct the teachers in the recognition of brain and nutritional deficiency in the pupils. He should be able to instruct teachers in meth-

ods of protecting pupils with deficient and inadequate brains against harmful activities and against overstress and overstrain. Many of these children are capable of a high grade of mental development but they must advance more slowly than the pupil without such handicap. They must never be rushed. Nutritional defects are inherent in many families and the children of such families are potential subjects of mental ill health; or nutritional deficiency may be acquired from illness or otherwise and, as long as it is present, it is a menace to the mental and nervous health of the child. A poorly nourished brain cannot stand stress and strain, the reserve nerve energy is soon exhausted and serious and even permanent damage may be done to the delicate and highly organized cell structure. Nutritional deficiency can and should be corrected by the cooperation of the teacher, the parents and the doctor. Timidity and emotional instability in its various manifestations in children are indicative of brain deficiency and such children should be carefully trained and supervised so that they may be able to overcome these handicaps before they become psychotic.

The so-called neurotic adults all suffer from brain deficiency and nutritional deficiency. They are all potentially psychotic and should receive more attention from the doctor who primarily contacts them. In too many cases the doctor gives them a sedative and tells them, "There is really nothing the matter with you, just forget it." The nutritional state of neurotic patients should be very carefully investigated.

In proof of my statement that mental ill health is steadily increasing and that the population of hospitals caring for those suffering with mental ill health is also increasing, I am quoting a few statistics as compiled by the State Eleemosynary Board and made public by Colonel W. Ed Jameson, President of the Board. In September, 1936, in the four state mental hospitals, there were 7621 patients; these patients were occupying space designed to care for 4984 patients. Buildings are now under construction to care for this surplus. The number of first admissions is increasing from year to year. In 1933 admissions were 1596, in 1934, there were 1634; in 1935 there were 2197 and in 1936 there were 2419 admissions. During these four years a total of 7846 patients were admitted and but 519 patients discharged as cured. The report of cures from the Missouri state hospitals is not a report of which we can be proud and does not compare favorably with the reports from the hospitals of other states. This is not because of the inefficiency of the medical staffs, but is more particularly due to the crowded conditions and to the hospitals being much undermanned medically. The patients

cannot receive a sufficient amount of personal medical attention and overcrowding is not conducive to the recovery of mental patients. The medical staffs should be enlarged as the hospitals are now being enlarged. The few patients who do recover in our state hospitals make it all the more imperative that we doctors take more interest and try harder to prevent predisposed patients from developing mental ill health. It can be done. The physicians of the state should interest themselves in the mental hygiene movement which now has a state wide organization under the control of medical men. The county medical societies should encourage more talks on the problems of mental health, both to their membership and to their public. It is only by education of the profession and the public in means and methods of prevention that the problem of mental ill health are going to be solved.

2625 Paseo.

BLEEDING IN PREGNANCY

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An appalling volume of blood is shed each year in the United States in the name of procreation. Thousands of tons of blood are sacrificed, and in this ruddy flood float the bodies of about 30 per cent of the mothers who die from conditions associated with pregnancy.

A rational policy of flood control in the medical profession will prevent most of it, but not all, for we are fully aware that a distressing number of eventually fatal hemorrhages take place before medical aid is available or even sought by the patient.

ABORTION

In a paper of this scope it is inadvisable to enter into a discussion of the etiology and pathology of abortion except as it has a bearing on the treatment of bleeding, either existent or probable. The manifold problems of habitual abortion in themselves warrant a separate discussion.

To prevent abortion the physician must see the patient in her first major complication of a reasonably assured pregnancy, the threatened abortion suspected because of the complaint and on the presumptive signs and symptoms. Ectopic pregnancy must be unlikely. The symptoms are mainly backache, low midline cramping and bleeding in varying degrees. There may be a history of passage of tissue, poorly described by the patient.

If the patient is seen early with bleeding limited to spotting, threatened abortion may be assumed and the usual expectant treatment in-

stituted consisting of absolute bed rest, elevation of the foot of the bed, light diet, no cathartics, ice bag to the abdomen and sedatives. In the last year or so we have limited sedatives to the bromides or barbiturates in sufficient amount to allay apprehension and keep the patient quiet; and for specific uterine sedation we have depended upon a minimum daily dosage of one international unit of progesterin for about five days, or until the patient can be up without recurrence of symptoms. Larger dosage or administration twice daily may be needed in some instances. An increasing number of favorable results are being reported from authoritative sources on the use of progesterin and in our hands the results have justified the expense entailed, especially in habitual abortion where causes other than endocrine have been eliminated.

For the patient who is having frank bleeding with or without cramps, a sterile speculum examination is indicated. Thus one may determine if the external os is dilated or if products of conception are presenting; in either case the diagnosis of inevitable abortion is made. If bleeding is the major factor, the safest method is to pack the vagina tightly and to administer opiates sufficient to control pain. This procedure is eminently safe even in the presence of sepsis existent or expected.

If the abortion is known to be incomplete or if it is suspected, the speculum examination should be employed. If tissue is visible in the external os it is permissible and advisable, aseptic technic being maintained, to grasp such tissue with a ring forceps and remove simply that portion which is visible. Nothing is to be gained by blind instrumental exploration of the uterus. The vaginal pack is immediately inserted.

Packs have often been disappointing in their performance, but largely because they were not placed efficiently and not enough packing was employed. If properly inserted there will be no bleeding through a vaginal pack, a fact we have frequently found necessary to demonstrate to interns.

The purpose of the pack is first to stop the immediate bleeding which occurs as rapidly as an intra-uterine clot can form, contractions are stimulated and the uterine sinuses are blocked. The major value of the pack, however, is its ability to soften and dilate the cervix. When the pack is removed after twenty-four hours, the complete uterine contents are ready to fall out and are often removed with the pack itself. A second packing may be required, and it is entirely permissible because the uterine cavity has not been disturbed and the hazard of sepsis has not been increased.

It may seem unusual to discuss such a com-

mon procedure as vaginal packing but there are certain technical details frequently overlooked that are responsible for packing failures.

If a firm pack is placed between the widely separated blades of a bivalve speculum, the instrument cannot be removed; if the instrument can be removed the pack obviously was not firm enough and will fluff out in the vagina becoming utterly ineffective. In the presence of a cystocele, rectocele and lacerated perineum, the speculum can be removed, but the pack has been placed between straight blades and represents a triangular mass, when actually it should have a spherical contour if the vaginal tissues are pushed centrifugally as far as possible. The solution of this problem is the use of the Sims speculum or, if one is not available, the Graves type instrument may be taken apart and the lower blade used to depress the perineum. The use of the Sims position in addition permits better vaginal distension and is a most satisfactory technic to be used in the home.

Two inch sterile roller bandage is the ideal packing material as it can be pushed into small interstices of the growing pack to make it more firm. To push all packing in the vaginal axis would appear satisfactory but by this technic the walls are not pushed centrifugally as they must be if the pack is to be tight. Such difficulty is obviated by packing about the cervix and keeping constantly near the vaginal walls and filling the center as needed. The last fourth of the vagina can be well packed by using the gloved finger and exerting considerable pressure.

Probably the most efficient pack ever devised is obtained with cotton pledgets wrung dry after soaking in 65 per cent alcohol or normal saline. It is a more tedious procedure but the patients do not bleed. Small pledgets are firmly packed into the fornices about the cervix and larger ones used to fill the vagina to the introitus. When removed the nearly dry pack resembles parts of a plaster cast and comes away in large fragments. If alcohol is used, one must avoid using any of the hospital or bottled preparations containing poisonous agents such as bichloride, copper sulphate, cresol, etc., as a slough of the vaginal mucosa may occur. Ethyl alcohol is harmless.

At the Kansas City General Hospital there are from ten to twenty abortion patients at all times, in all stages on admission from those threatening to abort to those moribund from sepsis. Over a period of ten years in a series of about 1200 cases the death rate in abortion was less than 3 per cent. There are few clinics with an equal or better record. Packing and transfusion has been the treatment, followed by digital evacuation or curettage in only a few

cases and then only if the patient was afebrile, had a normal white count and sedimentation time.

Oxytoxics may be used freely if the patient is not in the early stages of sepsis at which time violent uterine contractions may hasten the passage of infection through the lymphatics.

ECTOPIC PREGNANCY

In the event of ectopic pregnancy we need not emphasize the necessity of stopping the hemorrhage. In a discussion of this sort it is not necessary to review the symptomatology for it resolves itself upon the question, Is there intra-abdominal hemorrhage? In addition to the usual signs and symptoms one or two should be mentioned which have recently been emphasized as additional aids in making this diagnosis.

The two following are produced by the presence of blood near the diaphragm: (1) Pain produced by voluntary coughing, that is much relieved when the patient sits up; (2) dilatation of one pupil resulting from reflex stimuli via the phrenic nerve and cervical sympathetics. The practice of abdominal percussion to detect shifting fluid levels is most unsatisfactory in ectopic pregnancy, but the shift can frequently be demonstrated by placing the patient on her side for about five minutes. Pain becomes severe on that side. If the patient is gently turned to the opposite side, the pain shifts accordingly.

As to treatment, the opinion of most authorities is that early surgery is indicated providing the diagnosis is reasonably certain. Decision as to the time to operate, with due regard to shock, is a constant problem. Blood pressure and pulse determinations on one examination are notoriously fallacious as indices of the patient's condition. There may be extreme shock with little blood loss or massive hemorrhage with delayed appearance of evidence indicating shock.

In shock there is a rapid flow of blood plasma into the peripheral capillaries and tissues thus depriving the major circulation of sufficient blood volume, a deficiency which is exaggerated by actual blood loss. We hesitate to transfuse or infuse large volumes of saline or glucose solutions because of the danger of increasing the bleeding. There seems to be increasing evidence that from 50 to 100 cc. of 50 per cent glucose, given intravenously, does not increase blood volume immediately but only by its hypertonicity, drawing the fluid from the tissues and the overloaded peripheral capillaries back into the major circulation. By this method there is not an increase in total body fluids but a shift from an abnormal to a normal site.

One should be prepared, however, to trans-

fuse blood or infuse glucose and saline solution immediately after the bleeding has been controlled.

HYDATIDIFORM MOLE

Let us assume the diagnosis of hydatidiform mole has been made by the spontaneous or operative removal of characteristic tissue. If the hemorrhage is massive, as it frequently is, the contents must be evacuated and the uterus packed. Curettage is exceptionally dangerous due to the danger of perforation of the extremely soft uterus.

However, if bleeding is not of major consequence we are confronted with the problem of future treatment. There is certainly no unanimity of opinion as to procedure in consideration of the possibility of the existence or later development of chorionepithelioma. The pathologists agree that in far too many instances they cannot make accurate diagnoses. Patients should be checked on by the Friedman or Aschheim-Zondek test once a month for a year and every four months for another year or so. The persistence or return of a positive pregnancy test in the absence of pregnancy is almost pathognomic of the presence of chorionepithelioma.

PARTIAL PLACENTAL SEPARATION

Partial placental separation is rarely accurately diagnosed until delivery of the placenta on the margin of which may be seen an old organizing blood clot. The accident may happen anytime but usually produces pain only after five months gestation and is manifest by bleeding and persistently localized pain over the placental site without, however, any symptoms of shock or alteration of fetal heart sounds. Fetal movement, toxemia or trauma may cause an edge of the placenta to loosen and produce the pain and bleeding complained of. Complete separation rarely follows but premature labor may be induced. Complete bed rest, sedatives and prostestin to reduce uterine irritability are indicated. Cessation of symptoms indicates a clot has formed that will undergo organization and permit the continuance of the pregnancy.

ABRUPTIO PLACENTA

As in placenta praevia the treatment of abruptio placenta is being simplified as time goes on. Hemorrhage is the dominant phenomenon and, due to the inaccessible site, delay in decision as to treatment is often fatal. Although age, period of gestation, parity, condition of the cervix and the condition of the patient are important, time is still the most important factor.

Cesarean section is always indicated in abruptio placenta unless it is obvious that delivery can be accomplished within a very few min-

utes. External bleeding is of little significance and hemorrhage may be progressing rapidly into the uterine cavity, into the muscle itself or through the walls between the layers of the broad ligaments, and a patient may bleed to death retroperitoneally.

Donors should be obtained at once although transfusion is usually more effective if delayed until bleeding is controlled.

The problem of hysterectomy always arises because the hemorrhage into the uterine musculature may be so severe that the uterus cannot contract. Under such circumstances, it may be necessary to clamp the uterine arteries immediately if the uterus is slow in responding. Ordinarily we try to preserve the uterus in young or childless women but amputation may be a life-saving procedure.

Portes, of Paris, after a study of twenty-two women who had survived abruptio placenta, found that from their subsequent sixty pregnancies only fifteen living babies were delivered. On this basis, he feels that the uterus is not of sufficient obstetrical importance for its sacrifice to be too deeply regretted.

In the absence of hospital facilities the only treatment available is a tight binder or a Spanish windlass, to attempt to control the aorta, and small doses of pituitrin. After all, every patient treated in this manner will not die.

PLACENTA PRAEVIA

Instead of considering placenta praevia as a group of types, each demanding a specific variety of treatment, it seems advisable to consider it always as one condition manifesting varying degrees of severity, with treatment based on the condition of mother and baby and the time at which treatment can be rendered.

A safe rule to follow is that cesarean section gives the best results for both mother and baby in the average case. Cervical dilatation and intra-uterine manipulation on the whole produce a high fetal mortality which is contributed to in no small measure by prematurity. Certainly in nulliparous women, if hemorrhage is severe before the onset of labor, cesarean section will produce the best results regardless of the type of placenta praevia.

In cases where the cervix is soft, effaced and partly dilated, and the placenta is marginally located, simple rupture of the membranes may be sufficient treatment. The head descends pressing on the bleeding site. A bag may be inserted if the first procedure is not efficient; however, a bag large enough to produce full dilatation may ride high in the uterus and press upon so large a segment of placenta that fetal circulation is interfered with to the extent of causing fetal death.

In the absence of hospital facilities, the Braxton-Hicks version or the bag are the only alternatives and have done yeoman's duty for years in saving maternal lives, though rarely fetal lives.

A point that is all too often neglected should be emphasized; namely, that danger from hemorrhage is not over when the baby and placenta have been delivered. Bleeding in placenta praevia for the most part comes from the cervix which is noncontractile and is not automatically controlled by contraction of the fundus as it is in cases of normal implantation. Too, many women have had major postpartum hemorrhage after the attendant has gone home to sleep. Therefore it should be a rule to insert a uterine and vaginal pack, postpartum, in all cases of placenta praevia. The hazard of infection is minimal if packing is aseptically performed and I know of no more efficient manner of doing this than with the Holmes tubular packer. When using this device no packing touches the vulva or vagina as it is inserted.

The reason for packing both uterus and vagina is that the bleeding is from the noncontractile cervix and pressure must be exerted upon it, both from above and below, if it is to be controlled. The vaginal pack alone is most pernicious in that it permits bleeding above the pack into the uterus where it cannot be discovered.

Even in cesarean section for placenta praevia the uterus should be packed from above, tying the gauze to a catheter which is slipped through the cervix into the vagina which later is packed from below.

HEMORRHAGE IN THE THIRD STAGE OF LABOR

Prevention will be the keynote in this discussion. The first rule is to not manipulate the uterus when the third stage is normal although slow. This stage, however, may be shortened safely by the administration of 1 cc. of obstetrical pituitrin just as the head crowns, not before. The placenta then usually separates completely with the first contraction and can be found lying in the vagina after three to ten minutes, depending on the amount of anesthesia used. Blood loss is tremendously reduced.

Beware, however, of pituitrin after the birth of the child and before the placenta has separated because the lower uterine segment may contract and retain the placenta.

It is our practice, as soon as the placenta has been delivered, to administer one of the three new specific ergot alkaloids by vein. The uterus contracts rigidly in from eight to twenty seconds and remains firm. This technic has been used in 165 consecutive deliveries with no ill effects and there has been a most satisfactory reduction in blood loss during the first twelve hours postpartum.

One other word about pituitrin. Pituitary allergy is a real danger, particularly when a dose has been given and then repeated an hour or two later. Profound shock followed by uterine relaxation and hemorrhage may occur.

In the event of retained placenta with excessive hemorrhage, we feel convinced that early, aseptic, gentle, manual removal followed always by uterine packing is the safest procedure, only of course if the usually recommended methods have failed.

A simple procedure, not frequently mentioned in the literature, is to inject from 200 to 500 cc. of sterile normal saline solution into one of the umbilical veins. A large bore needle is placed in a vein and the cord tied tightly about it. The solution may then be injected slowly with a large syringe. The volume of the placenta increases and becomes sufficient stimulus to cause firm rhythmic uterine contractions with subsequent expulsion of the placenta.

Above all, one must avoid trauma to fatigued uterine muscles for that alone may cause shock without hemorrhage; and an overstimulated uterus may relax and increase hemorrhage rather than stop it. Spontaneous relaxation of the uterus often indicates shock before the pulse and blood pressure are altered.

Fluids and transfusions are, of course, indicated in postpartum hemorrhage. A valuable simple method of administering normal saline to an obstetrical hemorrhage patient, especially if she has had an anesthetic, is to rapidly instill 1000 cc. of the warm solution into the bowel with a large bore rectal tube and funnel. When given to a patient who has experienced severe hemorrhage and in whom there has, as yet, been little or no adjustment through her own tissue fluids, the solution is rapidly absorbed and I have never seen any part of it expelled. It is absorbed physiologically according to need and there is no danger of overloading the circulation. Fifty cc. of 50 per cent glucose given by vein at the same time will hasten the absorption.

CONCLUSIONS

1. In obstetrics, as in all surgery, the source, nature and degree of bleeding must be recognized; then it must be stopped without offering additional hazard to the mother, primarily, and secondarily to the baby.

2. Good judgment is still a safer bulwark against death than skill, providing skill is available when judgment declares it essential.

201 Plaza Theatre Building.

Early surgical removal of a circumscribed area of torulosis seems as logical to Kenneth W. Taber, Pasadena, Calif. (*Journal A. M. A.*, April 24, 1937), as the early removal of carcinoma.

THE ETIOLOGY OF PRIMARY GLAUCOMA AND ITS PHYS- IOLOGIC TREATMENT

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AND

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As a result of accidentally curing a 17 year old girl of migraine while treating her for urticaria with splenic extract, we reasoned that the cephalalgia was due to the edematous swelling causing the brain to encounter the resistance of the rigid cranial walls and concluded that the disappearance of the cerebral edema and cutaneous eruption was coincidental. Subsequent reasoning made it seem probable that primary glaucoma could also have an allergic etiology, the only difference being, in the latter case, that the contents of the edematous eyeball meet the resistance of the unyielding sclerocorneal envelope.³

Since a splenectomized animal and an eczematous individual both have an eosinophilia, Mayr and Moncorps, of Munich, Germany, decided this might indicate that the eczematous patient's spleen was functioning little if at all. Stimulation of the spleen by roentgen ray produced marked improvement in eczematous lesions. Fearing a roentgen ray burn, they soon discontinued this treatment and resorted to the injection of hog spleen extract. This extract was thoroughly de-albuminized in order to avoid allergic shock.¹

Finding no similar extract on the American market we induced a commercial laboratory to make one. After determining an adequate dose by clinical experience, results were obtained that often were nothing short of miraculous; the lesions and itching of urticaria and the pruritus and oozing of eczema would often disappear in twenty minutes after the first injection.² By this treatment cures were obtained in practically all cases of urticaria, in 95 per cent of eczema, in 80 per cent of asthma, in 60 per cent of hay fever cases and all the few cases of angioneurotic edema so far encountered. These results are based on a total of over 550 cases.

The experience, briefly stated in the preceding paragraph, required over seven years for its acquisition and afforded assurance to Dr. Paul who originated the idea that this treatment would prove successful in primary glaucoma if this eye disease be allergic in origin.³

Most ophthalmologists agree that the majority of cases of increased intra-ocular tension although treated medically eventually are com-

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pelled to submit to surgery and that a large percentage of those treated surgically receive only temporary relief and ultimately suffer partial or total loss of vision; therefore, any safe, rational, medical therapy that offers any relief, or a possible cure, is justifiable.

Pursuing this line of reasoning, the following series of cases was treated with splenic extract and brief reports are submitted. No acute or transitory cases that responded to the usual medical therapy are included in this list, all were definitely chronic cases, several having been treated previously by two or more ophthalmologists. There were eight cases of simple, uncomplicated glaucoma, one of which had been diagnosed and treated by four different ophthalmologists as malignant hypertension. The poorer eye had been operated on with but little relief and the tension remained 60 or above. The tension in the better eye was from 28 to 32 or 34, and unless treated continuously with eserine, pilocarpine or both, would get much higher. Injections of liquid spleen reduced the tension in the poorer eye to the low thirties and in the better eye to 20 or 22. This condition could be maintained by the frequent injection of liquid spleen but the field gradually narrowed in the poorer eye and an Elliott trephine was performed. That was about eight months ago. Her vision is now reported by her surgeon to be normal in both eyes with normal tension.

In another case one eye had been operated on six years ago with restoration of normal intra-ocular tension but the vision is 20-80 or less. She has had one or two exacerbations in the better eye during this interval. These responded to the usual medical treatment and the eye maintained normal vision until one year ago when she was brought into the hospital with a severe fulminating attack that would not respond to the usual therapy. Within a few hours after the initial injection of liquid spleen all her symptoms were relieved and within twenty-four hours the tension was normal; the following day she was permitted to return home to be treated by her family physician.

One other patient of this series requires an occasional injection of liquid spleen but is able to do all her own housework and maintains normal tension and vision. The other five cases of this series have not required medical attention.

Two patients were diabetics and gave histories of mild attacks of glaucoma extending over a period of several months, the attacks becoming more severe and prolonged and less relief obtained by medical therapy. Both were given injections of liquid spleen with satisfactory results except in one the crystalline lens in one eye became swollen with opacities obliterat-

ing the anterior chamber and making an iridectomy necessary. The tension has remained low in both patients following a prolonged series of liquid spleen injections with no apparent disturbance in the diabetic condition.

Three cases were patients with cardiovascular hypertension. One had a swollen opaque crystalline lens that was operated on and all are progressing satisfactorily.

One patient developed glaucoma two years ago, secondary to three small fragments of steel being embedded in the posterior quadrant of the eyeball during the late war. The usual therapy was tried with little relief and enucleation had been advised. The tension has remained low following a series of liquid spleen injections except when the patient overworks or contracts an acute infection. The hypertension responds readily, however, to one or two injections of liquid spleen.

The writers fully appreciate that results obtained in such a small series of cases, and the few years the treatment has been used, do not justify them in making definite conclusions, but we are fully convinced that most cases of simple or congestive glaucoma usually are found in the same type of individuals so frequently seen and diagnosed as allergic.

The macroscopic appearance of the tissues of the eye in a case of simple congestive glaucoma is similar to that of the tissues involved in allergic reactions or angioneurotic edema.

Our experience, extending over a period of three years, has fully convinced us of the value of liquid spleen injections for the reduction of intra-ocular tension.

Although a laboratory study of splenic extract extending over two years has been made by Dr. M. M. Ellis, Professor of Physiology at the University of Missouri, it has not yet been biologically standardized.⁴ For this reason the extract made by one commercial laboratory may be entirely different from that produced by another. This fully accounts for the conflicting reports found in the literature; a few writers claim they have had excellent results and others condemn this treatment as utterly worthless. The vast majority of writers, not having had the good fortune to select a potent extract, are in the latter class. The extract we use is of low concentration and the adult dose, 20 cc., is voluminous; experience with highly concentrated extracts has taught us that they have little, if any, therapeutic value.

CONCLUSIONS

1. Results obtained in the treatment of primary glaucoma with modern medical and surgical means are far from satisfactory.
2. A therapeutically potent extract of hog

spleen, if given in adequate doses, produces effects which are both prompt and lasting.

3. A perfect restoration to normal of the involved tissues could probably be brought about more rapidly by a splenic extract raised to a biological standard by fractional extraction.

These concluding statements make it obvious that this paper is merely a preliminary report.

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DISCUSSION

DR. A. E. MILLER, St. Joseph: There is not much to add to what Dr. Paul has read except to emphasize some of the things that I think are unusual in a paper of this type. I wish to emphasize again how little has been done for glaucoma by the profession during a good many years past. As proof of this an excellent article in the February issue of *Surgery, Gynecology and Obstetrics* by Dr. W. H. Luedde, St. Louis, gives a résumé of what was done before surgery was thought of and how little has been accomplished for this terrible malady and how little improvement there has been made over the original iridectomy. When you get several ophthalmologists together, talking and discussing this malady they all end by saying, "Most of them go blind regardless of what operation is done or how they are treated." In the last issue of the *Archives* there is an interesting article by Dr. Schoenberg describing research they are instituting in the Herman Knapp Memorial Hospital in New York in regard to glaucoma. Consequently Dr. Paul and I think anything we have to offer might be interesting. We know this is not a finished product but we are absolutely sure that in the cases in which we have used it has reduced the tension in glaucoma. We have purposely avoided the technical side of it because we have not the clinical facilities to work it out, but we hope to interest some of you who have clinical laboratory facilities in taking this up where we have left off and finish working it out.

We had a case after the paper was written, a woman in quarantine for smallpox who developed glaucoma. She had excellent nursing care but the eye gradually failed and the tension increased, the cornea was steamy, and after exhausting our resources, surgery was not advisable, we gave her some 500 per cent with no results, but later the patient did get results with the 40 per cent solution. The tension was 66 to 68, and about two weeks ago it was 22.

We hope some of you will take this up and give it a fair trial because there is nothing else in the world to offer these people.

TREATMENT OF MENINGOCOCCIC MENINGITIS WITH SULFANILAMIDE: PRELIMINARY REPORT

Francis F. Schwentker, Sidney Gelman and Perrin H. Long, Baltimore (*Journal A. M. A.*, April 24, 1937), employed sulfanilamide in the treatment of ten cases of meningococcic meningitis and one of septicemia. The ages of the patients ranged from 1 to 34 years. The cases ranged in severity from moderate to severe illness. Within the limitations of individual need, all patients were treated in the same manner, by subcutaneous and intraspinal injection of the drug. After a diagnosis of meningococcic meningitis had been made, sulfanilamide solution was injected intraspinally into the patient in amounts varying from 10 to 30 cc. As a general rule the amount injected was from 5 to 10 cc. less than the volume of spinal fluid removed. A larger amount of the solution was also given subcutaneously, approximately 100 cc. being injected for each 40 pounds (18 Kg.) of body weight. Both the intraspinal and subcutaneous treatments were repeated every twelve hours for the first two days and once each day thereafter until definite improvement was evident. In some instances subcutaneous injection of the drug was continued for several days longer than the intraspinal treatment. In some cases the cell count of the spinal fluid fell rapidly and progressively. In others the count remained elevated for several days, then decreased precipitously. Culture of the spinal fluid of a number of patients were sterile after the first treatment; for others several treatments were required, but in no case was the organism recovered longer than three days after instigation of treatment. The speed of clinical improvement also varied from rapid to a more protracted return to normal. There was one death. No untoward effects following the use of sulfanilamide have been noted. Although transient methemoglobinemia, sulfhemoglobinemia, mild acidosis and morbilliform rash have each occasionally occurred in patients treated with sulfanilamide for streptococcal infections, none of these conditions have been noted in the patients in this series. The therapeutic response of the patients to treatment with sulfanilamide seems quite comparable to that which usually follows treatment with specific antiserum.

I. W. Held and A. Allen Goldbloom, New York (*Journal A. M. A.*, April 24, 1937), report the case of a male patient who developed Addison-Biermer's anemia in 1927, was completely cured by liver treatment and recently developed cancer of the stomach. That cancer of the stomach, or of any part of the gastrointestinal tract, especially of the cecum, may hematologically simulate Addison-Biermer's (pernicious) anemia is very well known, and it is also true that Addison-Biermer's anemia may be associated with cancer, so that it is impossible to determine which was primary but in the present case the hematologic picture and symptoms of Addison's Biermer's anemia entirely disappeared as a result of treatment, after which carcinoma of the stomach developed. Although liver treatment is effective in Addison-Biermer's anemia so far as returning the hematologic picture to normal is concerned and may also bring about complete disappearance of the subjective symptoms, the existing anacidity, which is a constant feature of the disease, may continue, as may neurologic manifestations, if these were present. Therefore there are certain authors who are of the opinion that the anacid gastritis is a predisposing factor for the development of gastric cancer.

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SEPTEMBER, 1937

EDITORIALS

HEART MURMURS

Heart murmurs may be listed among the physical signs difficult of interpretation. They arise in abnormalities in the channel of flow taken by the blood. These signs have been thought to arise in the blood itself as well as in the orifice through which it must pass. The so-called hemic murmur has been thought to result from a deficiency of the blood cells themselves. Other murmurs arise in the deflection offered the flow of blood by irregularities in the valves or chambers. The importance of these murmurs is that they may indicate heart disease. Yet it has not hitherto been controverted that some murmurs are incidental findings to be disregarded as having no physiologic or anatomic basis. The importance of a correct interpretation of such murmurs is self evident for they may lead to the institution of appropriate restrictions directed toward the lengthening of life.

In general it has been assumed that murmurs localized to certain areas of the heart and possessing certain tone qualities are functional. By contrast, a different tone quality heard at more than one point on the chest wall indicates that the adventitious sound arises in a diseased orifice. Diastolic murmurs, all agree, invariably point to organic disease except in a few rare instances. Systolic murmurs, on the other hand, may be functional or organic. Hermann¹ in 1929, assumed that the functional murmurs while not due to a primary valvulitis, "are due to secondary changes in the heart muscle and in the valvular rings." He believed that of all the functional murmurs those arising in the pulmonic area were least likely to be pathologically significant.

Emerson² in 1936 added to the connotation of functional murmurs by his insistence that they arise from dilatation of valve rings; in fact, he would attribute pathologic significance to any murmur except, possibly, the pulmonic systolic. He exemplifies a distinct change in attitude from that of the earlier teachers. Perhaps it is this earlier pedagogy that inclines the practicing physician not infrequently to question the significance of murmurs, even those which have caused the rejection of an applicant for insurance. Physicians tend to be didactic in assuming the insignificance of cardiac murmurs. For this reason the recent discussion of Hunter,³ the chief actuary for the New York Life Insurance Company, is bound to be instructive.

In 1925 the insurance companies adopted a new terminology for heart murmurs as recorded by their examining physicians and depending upon location, time in the cardiac cycle, transmission and constancy. In so doing they discarded the diagnosis of a functional murmur. Hunter contributes several analyses of the comparative mortality occurring in persons with murmurs considered to be of the functional type. Based upon the Medical Impairment Study of 1931-32 he offers conclusions obtained from the death records accumulated from over two million policies. The surprising result is that persons with a functional murmur at the time of the original examination for insurance lived a shorter time than persons without such a finding. As Hunter puts it the extra mortality, that is the actual as compared with the expected number of deaths, may be almost doubled. Among those aged from 15 to 34 years at the time of policy issue and in whom a constant apical systolic murmur, thought functional, was found, the extra mortality was 84 per cent while in those over 45 years at the time of policy issue this extra mortality amounted only to 22 per cent. In those presenting an inconstant localized systolic apical or a constant localized systolic aortic murmur, supposedly functional, the extra mortality amounted to 35 per cent.

As was to be expected those applicants for insurance showing a murmur considered of organic origin had a still higher mortality, in some cases the death rate being five times the expected. The degree of hypertrophy present at the initial examination serves as a good index of life expectancy; of those with mitral valve disease without cardiac enlargement the extra mortality was 111 per cent whereas in those

2. Emerson, C. P.: Textbook of Medicine, J. B. Lippincott Co., Philadelphia, p. 756, 1936.

3. Hunter, A.: Heart Murmurs, Am. Heart J. 14:10 (July) 1937.

1. Hermann, G.: Oxford System of Medicine 2:492(21), 1929.

with moderate hypertrophy the extra mortality amounted to 256 per cent, three and a half times the expected. One of the curious findings of the study lies in the marked increase in extra mortality of those with mitral valve disease insured after 1925 as compared with the mortality in the same class of individuals issued policies before that date. In those cases with slight cardiac hypertrophy the extra mortality was 133 per cent before 1925, and 227 per cent after that date. In those having moderate hypertrophy the extra mortality was 227 per cent before 1925 and 366 per cent after that date. No explanation is offered for this striking increase in mortality experience.

In one respect, that a basal murmur in the younger age group is without significance Hunter's study confirms the teaching of Herrmann and Emerson, the extra mortality in those aged 15 to 34 being only 1 per cent; but the extra mortality associated with this murmur increased with age. Hence it cannot be lightly disregarded.

The implication of Hunter's study is clear. Murmurs must more rarely be thought of as functional. While they may not indicate a vegetative or destructive process involving the valve they do serve as evidence of some cardiac weakness. Individuals having them, statistically considered, will not live as long as those without them. Perhaps, after all, they may be taken as early evidence of diminished cardiac reserve since it seems clear that a dilatation or stretching of a valve ring is concerned in their production. The impersonal consideration accorded morbidity factors, especially as they affect the male sex, by the calculating machines of the insurance companies assures the importance of Hunter's observations; nevertheless we shall look forward to a similar study conducted by a cardiologist. The latter will have individually decided the meaning of murmurs encountered in his patients; should he follow them to their death further valuable information looking toward the clarification of this vexing problem may be anticipated.

THE FALL CLINICAL CONFERENCE OF THE KANSAS CITY SOUTH- WEST CLINICAL SOCIETY

The officers of the Kansas City Southwest Clinical Society have assembled an excellent program for the Fall Conference to be held from October 4 to 7. In addition to a large number of American guests and members of the Clinical Society in Greater Kansas City, the program will be honored by two distinguished foreign guests.

Sir George Lenthal Cheatle, London, England, who is spending a sabbatical year in the United States, will give two addresses on subjects for which he is well known in the United States. His excellent volume, "Tumors of the Breast," has revolutionized the classification of breast tumors and aided greatly in the treatment of them. One of his addresses will be on "Paget's Disease of the Nipple." It was on this subject that he published a voluminous monograph prior to the appearance of his work on tumors of the breast in general. Sir George Lenthal Cheatle is a Fellow of the Royal College of Surgeons of England.

Dr. Alfred E. Barclay, a radiologist, is to be the other honored foreign guest. At present he is Research Professor of Physiology at Nuffield Institute for Medical Research, Oxford. He was formerly a lecturer upon medical radiology and electrology at the University of Cambridge and is a past president of the British Roentgen Society and the British Institute of Radiology. He is also the author of several books including "The Stomach and Oesophagus," "Normal Mechanism of Swallowing" and "The Digestive Tract; a Radiological Study."

The program for the four days will be most intensive. The afternoons will be devoted exclusively to distinguished guests and two sectional sessions will be held each morning in which members of the Clinical Society of Greater Kansas City and distinguished guests will participate. The speakers, as well as their subjects, have been carefully chosen and guests will find it to be most inviting and instructive.

CALICEAL PLAQUES AND NEPHROLITHIASIS

The genesis of renal calculus has long remained one of the enigmatic problems of medicine. Known since early history both because they have been preserved in mummies and for the multitude of operations proposed for their relief, seemingly endemic to certain areas, composed of a variety of chemical substances, investigators are apparently not yet ready to offer a universally acceptable theory as to their origin. Stasis, infection, dietary deficiency of vitamin A, hyperparathyroidism as well as the nebulous hypotheses of colloidal chemistry, all have been offered to explain the formation of these stones. Each view has its proponents; yet valid argument can be brought against each of these theories.

Structurally these stones do not seem to adhere to any one form. There is a nidus about which salts are precipitated. Yet, in most cases there is a definite collagenous framework run-

ning through the entire stone. Berke¹ summarizes the existing views in the conclusions of his recent study on the subject. He sectioned a variety of stones, demonstrated the central nucleus about which they formed and reproduced pictures of the collagenous framework in which the crystals characteristic of the stone are deposited. The nucleus he found to consist of red or white blood cells, or bacteria, never of epithelial cells. The peripheral structure he believed to be derived from blood or inflammatory exudate. But whence came the infection, the blood, the inflammation? On these points he is necessarily vague.

Now comes Randall² with an entirely new theory based upon careful anatomic investigation of kidneys removed at autopsy from persons dying of a cause not connected with the kidney. He found in 17 per cent of over 400 kidneys from persons without kidney disease a pathologic entity which had never been described before; he puts it forward as the focus of stone formation.

Examining all the kidney calices with a hand lens he discovered that some contained yellowish plaques. These on microscopic study proved to be deposits containing as much as 5 per cent of calcium in contrast to the normal visceral calcium content of less than 0.5 per cent. As he went on with his search he found an occasional calcium plaque to which was fastened a secondary deposit of black material hardly larger than the dot over an "i." In another case he found a calcium phosphate stone about 2 millimeters in diameter loose in the kidney pelvis; attached to a calcium plaque in one of the calices of this same kidney there was a tiny accretion which he believes to represent the earliest stages of another stone formation. Certainly this hypothesis is attractive. By its aid one understands why stones attain good size before they produce symptoms. And to support it is the finding that some of the smaller stones show a groove which might have marked their point of attachment to the mother plaque. Altogether now Berke has found fourteen specimens in which stones grew upon calcium plaques, and in one of them six stones grew from a calcium plaque in each of the six calices.

Strangely enough the stone which grows on the plaque is not of the same chemical composition as the plaque itself. Thus, while the plaque is usually a relatively pure calcium deposit without phosphate increment the stones are composed of calcium phosphate although there is too much variation in this regard to formulate

any definitive conclusion. Randall does not record any noncalcium stones in his study.

The reason for the formation of the stone initiating plaque cannot yet be answered. There is destruction of the epithelial lining of the collecting tubules of the kidney, more marked near the tip of the papilla, occasionally with necrosis of the ground substance. Whether these lesions result from bacterial embolism, from dietary deficiency or from metabolic disturbances may be answered by the further studies which Randall has begun. Certainly his researches open a new avenue toward the discovery of the pathogenesis of nephrolithiasis. They will go far toward the explanation of some of the still unexplained causes of renal stone formation. Perhaps his further studies will reconcile Berke's observations on the collagenous framework of stones with his own theories as to their proximate origin; perhaps he will be able to explain the presence of a cell nucleus which has heretofore been an almost invariable finding in stones submitted to section.

PROTEIN AS CAUSE OF NEPHRITIS

For years there has been much speculation as to the rôle which dietary protein plays in the pathogenesis of nephritis. The appearance of a protein derivative, albumin, in the urine led to the assumption that excessive protein ingestion acted as the etiologic agent. Uncritical inference led to the conclusion that "red" meat was harmful in this disease while "white" meat was harmless. In later years laboratory investigation made it clear that in certain forms of nephritis protein, both of animal and vegetable origin, not only was not harmful but might actually prove beneficial. The observations which the Stefansen expedition made upon Eskimos, and later observations made upon the explorer himself, seemed to prove that an excessive ingestion of protein did not initiate the nephritic process.

Laboratory investigations using small animals as subjects seeming to show protein as the culprit in nephritis have been generally discredited. The essential difference between the abnormal metabolism of men and caged animals was not sufficiently taken into account in such experiments. Therefore it is surprising to find a recent report from the Metropolitan Life Insurance Company's Biochemical Laboratory which again tends toward the dietary protein pathogenesis of nephritis. Under carefully controlled conditions Blatherwick and Medlar¹ determined the effect of various diets upon

1. Berke, J. D.: Nature of Urinary Calculi, *J. Urol.* **38**:118, 1937.

2. Randall, A.: The Origin and Growth of Renal Calculi, *Ann. Surg.* **105**:1009, 1937.

1. Blatherwick, N. R., and Medlar, E. M.: Chronic Nephritis in Rats Fed High Protein Diets, *Arch. Int. Med.* **59**:572, 1937.

more than four hundred rats. Meat protein constituted from 12 to 75 per cent of the experimental diets used in their studies. By contrast the total protein intake of the average adult constitutes only from 11 to 16 per cent by weight of the total food intake. Hence the tremendous excess of this factor in their diets is evident.

In general, they found that the higher the protein content of the diet the more likely the animal to develop nephritis, manifested both clinically and pathologically. Female rats were more resistant to the production of nephritis than were male animals. The authors suggest this as a wise provision of nature, designed to enable the female more readily to fulfill her biologic destiny. By contrast, there is no appreciable difference in the mortality rate of male and female persons dying of chronic nephritis. The microscopic anatomy of the rat suffering from this experimental nephritis is not similar to that of the human being dying of chronic nephritis, although it must be admitted that there are certain similarities. That the changes in blood chemistry in the experimental animals were like those of human beings suffering from certain forms of chronic nephritis is not surprising; that this gives significance to the experiment is debatable. The intensity of the nephritis in these rats was increased by the inclusion of thyroid substance in the high protein diet, and directly proportional to the amount of thyroid given. By contrast, there are no significant or constant urinary changes in human thyrotoxicosis.

One of the curious findings of the investigation is that the inclusion of irradiated yeast in the diet produced an unexpected incidence of aortic calcification, hydronephrosis and renal calculi. The danger inherent to the indiscriminate ingestion of irradiated products in human beings is suggested.

Blatherwick and Medlar do not attempt conclusions relative to the origin of nephritis in human beings on the basis of their experiments; they content themselves with the observation that it is possible to produce chronic nephritis in rats by feeding diets high in protein. But the disparities noted above, and particularly the tremendous preponderance of protein employed in their diets, allow no conclusion relative to the pathogenesis of Bright's disease in men. Patients may be allowed to eat their meat and dairy products until specific contraindications (largely in the blood chemistry findings) appear. Certainly it is not beyond belief that the imposition of an excessive and unusual metabolic strain on any organ may produce disease. But the present as well as preceding experiments fail to indict protein as the culprit of nephritis.

NEWS NOTES

Dr. R. H. Runde, Mount Vernon, has been appointed by the Eleemosynary Board as superintendent of the Missouri State Sanatorium at Mount Vernon to succeed Dr. W. J. Bryan who resigned to become superintendent and medical director of the Municipal Tuberculosis Sanatorium at Rockford, Illinois.

The Jackson County Medical Society has created a Medical Business Bureau. The Bureau was organized under the supervision of the executive council and is managed by Mr. W. H. Bartleson. The Bureau is at present functioning in collecting delinquent accounts for physicians and in assembling credit information for the benefit of physicians. A broader scope of work is planned as the Bureau progresses.

Kansas City was one of nineteen larger cities in the United States that had no deaths from diphtheria during 1936. In the report of its annual survey of ninety-three cities from which it has obtained death rates for the last fourteen years, the *Journal of the American Medical Association* states that six cities had no deaths from either diphtheria or typhoid, eighteen had no deaths from typhoid and nineteen had no deaths from diphtheria. In 1923, when the first survey was made, the death rate from diphtheria was 13.13 per 100,000 population; today it is 1.51 per 100,000.

A premarital health examination law was passed by the Illinois General Assembly and became effective in Illinois on July 1, 1937. The law requires that a certificate showing the applicants to be free from venereal disease shall be submitted before a county clerk may issue a marriage license, the examination to have been made within fifteen days prior to the issuance of the license. A license issued under this law is void if not used within thirty days. The law states that the examination may be made by any duly licensed physician. Thus should a physician in Missouri be requested to make such an examination it would be in compliance with the Illinois law. However, the law states that laboratory examination shall be made free of charge by the Illinois State Department of Health or the health departments of cities and towns upon the request of physicians in the state (Illinois), so Missouri physicians cannot expect to call upon the Illinois Department of Health for free laboratory service in such examinations.

Nineteen radiologists from Missouri will participate in the Fifth International Congress of Radiology which convenes in Chicago at the Palmer House September 13 to 17. It is the first time this Congress has convened in this country and physicians and physicists from thirty nations and four continents are expected to attend. Missouri members who will take part in the Congress are Drs. A. N. Arneson, Edwin C. Ernst, James B. Costen, Sherwood Moore, Wendell G. Scott, Fred J. Taussig, W. K. Mueller, Joseph C. Peden, Edgar W. Spinzig, Paul F. Titterington and Oscar C. Zink, St. Louis; David S. Dann, Everett R. Deweese, Ira H. Lockwood and E. H. Skinner, Kansas City; J. S. Summers, Jefferson City; H. D. McGaughey, Joplin; H. J. Ravold, St. Joseph, and Paul F. Cole, Springfield.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

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The third annual meeting of the Mississippi Valley Medical Society will be held at Quincy, Illinois, September 29 and 30 and October 1. Sixty lectures and demonstrations will be presented at the session. The first day will be an all St. Louis program with eighteen clinicians from St. Louis on the program; on the second day there will be presentations by men from Rochester and Chicago, and on the third day the speakers will come from a wide territory. Two short courses of instruction of four hours

each will be given, one on "Interpretation of Clinical Laboratory Findings" by Dr. M. Pinson Neal, Columbia, the other on "Surgery of the Neck" by Dr. Lindon Seed, Chicago. At an annual banquet on September 30 the speakers will be Dr. Dudley S. Conley, Columbia, President of the Missouri State Medical Association and Dean of the University of Missouri School of Medicine; Dr. R. K. Packard, Chicago, President of the Illinois State Medical Association; Dr. E. M. Myers, Boone, Iowa, President of the Iowa State Medical Association, and the Rev. Father Alphonse M. Schwitalla, St. Louis, Dean of St. Louis University School of Medicine. The meeting is open to all ethical physicians.

The International Assembly of the Interstate Postgraduate Medical Association of North America will convene in the Public Auditorium, St. Louis, October 18 to 22. Pre-assembly clinics will be held on Saturday, October 16, and postassembly clinics on Saturday, October 23, in the hospitals of St. Louis. The St. Louis Medical Society will be host to the Assembly and has appointed committees who will function throughout the Assembly.

The aim of the program committee, with Dr. George Crile, Cleveland, as chairman, has been to provide for the medical profession an intensive postgraduate course covering the various branches of medical science. The program has been carefully arranged to meet the demands of the general practitioner as well as the specialist. Extreme care has been given to the selection of the contributors and the subjects of their contributions. Members in good standing in their state associations are invited to attend the session. A registration fee of \$5 is charged.

Dr. John F. Erdmann, New York, is president of the Assembly, and Dr. W. B. Peck, Freeport, Illinois, is managing director.

Missouri members who will appear on the program and their subjects are: Dr. John R. Caulk, St. Louis, "The Treatment of Urinary Infections in Infants and Children." Dr. Otto H. Schwarz, St. Louis, "Prenatal Care." Dr. Cyrus E. Burford, St. Louis, "Chronic Prostatitis." Dr. D. P. Barr, St. Louis, "Various Types of Edema and Their Treatment." Dr. Horace W. Soper, St. Louis, "Newer Methods in the Medical Treatment of Peptic Ulcer." Dr. Ralph A. Kinsella, St. Louis, "Endocarditis." Dr. William H. Vogt, St. Louis, "Diagnosis and Treatment of Displacements of the Uterus." Dr. William T. Coughlin, St. Louis, "Indications for Exploratory Laparotomy." Dr. Evarts A. Graham, St. Louis, "Chest Surgery." Dr. Fred W. Bailey, St. Louis, "The

Menace of Postoperative Adhesions." The subject on which Dr. M. L. Klinefelter, St. Louis, will speak will be announced later.

The ninth annual inactive duty training period for medical reserve officers of the Army and Navy will be held in Rochester, Minnesota, at the Mayo Clinic under the military supervision of the Surgeon of the Seventh Corps Area (Army) and the Surgeon of the Ninth Naval District (Navy) from October 3 to 16. The program will follow the plan of past years. The morning hours will be devoted entirely to professional work in special clinics and study groups at the various hospitals. Officers in attendance may select the course they wish to follow from the wide variety of presentations offered. The afternoons and evenings will be devoted to medico-military programs under the direction of the Surgeon of the Seventh Corps Area and the Surgeon of the Ninth Naval District. Distinguished visitors will present addresses. The surgeon generals of the Army and Navy will attend and probably the Surgeon General of the United States Public Health Service will appear on the program.

The meeting is held for reserve officers of the Army and Navy and due military credits will be given for attendance. The training is on an inactive duty status and is without expense to the government. Enrollment is open to all Army and Navy reservists of the medical departments in good standing.

This training course was first inaugurated by the Seventh Corps Area at the request of the Mayo Foundation to give training in military medicine to the young medical men connected with the foundation. Other reserve officers requested permission to enroll and to take advantage of the opportunity to attend the clinical presentations during the morning hours. Such permission was granted and attendance has become so increasingly popular that enrollment is now limited to 200.

Applications should be submitted to the Surgeon of the Seventh Corps Area, Omaha, Nebraska, or to the Surgeon of the Ninth Naval District, Great Lakes, Illinois.

MISCELLANY

GONORRHEA

The Missouri Social Hygiene Association is preparing a series of articles on various phases of gonorrhea. These articles are appearing in the *Bulletin* of the St. Louis Medical Society and are reprinted that the members throughout the state may have the opportunity of reading them.

The Clinical Diagnosis of Gonorrhea in the Female

Stating that gonorrhea is more often missed than diagnosed in the female, the Neisserian Medical Society of Massachusetts enumerates the following reasons for this general failure:

1. The laissez-faire attitude of most women (especially married women) toward leukorrhea and mild urinary symptoms.
2. The variety of conditions of the cervix which produce a leukorrhea.
3. The inaccessibility of the pelvic cavity and its contents.
4. The tendency of the medical practitioner to consider all leukorrheas as due to cervical lacerations, and all metrorrhagias to be the result of uterine displacements.
5. The tendency of the surgeon to look upon the surgical complications of gonorrhea as pathological entities (pus-tubes, pelvic inflammation, etc.) and to overlook the general infection of the genito-urinary tract.
6. The relative rarity with which "organisms resembling the gonococcus" can be found in the later stages of the disease, combined with a traditional but unsupportable unwillingness on the part of the medical profession to make the diagnosis on clinical evidence and history, for moral considerations.

7. The too general belief that gonorrhea in the female is to be found only in prostitutes or in the promiscuous, in the face of ample evidence that more than half of the infections are in innocently infected married women and girls. The diagnosis of gonorrhea in the adult female cannot depend alone upon the discovery of "organisms resembling the gonococcus." They are likely to be found only during the early stages of the infection, during reactivations of the disease and for a short time after reinfection. At other times, diagnosis will usually have to rest upon detailed history, thorough examination, and the physician's ability to "sort out" from the mass of evidence, that which points to infection with gonococcus.

The diagnosis may be conveniently discussed under the headings of: (1) The stage of infection; (2) the stage of pelvic invasion; (3) the stage of pelvic degenerative lesion.

1. *The Stage of Infection.* The typical textbook picture of this stage should cause no difficulty in diagnosis, but it is the atypical case which predominates. The pain and burning on urination which are so constantly mentioned as characteristic of this stage are variable in degree, often of short duration and usually absent. The amount and nature of the vaginal discharge depends upon the duration of the infection, the degree of reaction in the cervix, whether douches have been taken and whether there was a pre-existing leukorrhea. In a characteristic case, the urethral meatus is inflamed, swollen, gaping and discharging, and Skene's glands red, swollen, often with enerted openings and discharging pus. The mucous membranes of the entire vulva may be inflamed and bathed in pus, although if the general inflammatory reaction has subsided, there may remain only the local reaction about the urethra and Skene's and Bartholin's glands.

The vagina is rarely involved in the adult. The reaction in the cervix is usually delayed a week or more after the onset of the urinary symptoms and the vulvar involvement. There may be a marked inflammation with a granular appearance of the mucosa and a copious purulent discharge. Later the inflammation may be moderate or localized as a more or less circumscribed erosion, particularly around the os. The discharge is

then chiefly from the os and is mucopurulent or a thick tenacious plug. In parous women, the characteristic reaction may be modified by pre-existing lacerations, erosions, a patulous os and endocervicitis.

2. *The Stage of Pelvic Invasion.* This stage marks the extension of infection into the pelvic cavity and may include involvement of the endometrium, the tubes, the ovaries and the peritoneum. This invasion is usually delayed until after the first or second menstruation following infection or after the termination of the next pregnancy, which accounts for much "one-child" sterility.

The symptoms vary widely, depending upon when the patient is seen. One or two menstrual periods appearing a week or two early or a prolonged flow may be the only evidence of pelvic invasions. An unaccustomed dysmenorrhea, soreness or tenderness over the fundus, pain in either or both quadrants, persistent leukorrhea for weeks or months with slight pain should arouse suspicion. On the other hand, the patient may occasionally be so ill as to require surgical intervention or complete bed rest. There may be nausea, vomiting, backache and all the evidence of a surgical condition in the abdomen.

Certain complications may present themselves in the case of a patient who is seen during this second stage of the disease. There may have been drainage by way of the vagina, operations for variously diagnosed abdominal conditions, miscarriage which is not uncommon at this stage and ectopic pregnancy.

The bimanual examination may disclose only tenderness and resistance in one or both vaginal vaults, a tender fixed uterus or masses of various size and location. The amount of pain is not necessarily proportionate to the size of the abscesses and pus-tubes. It may be necessary to use the Aschheim Zondek test in differentiating this stage from ectopic pregnancy or tubal abortion.

The urethra and Skene's ducts may present an inflammatory appearance if the pelvic invasion has followed close upon the initial infection. Otherwise the meatus may be surrounded by smooth, shiny, mucous membrane. Skene's ducts may "pout," or they and the mucosa may seem entirely normal. The inflammatory reaction in the mucosa of the vulva will probably have subsided, leaving only the injected opening into Bartholin's glands, or the same shiny "denuded" appearance as that around the urethra.

The inflammatory reaction in the cervix will usually have subsided, so that only some erosion and a marked mucopurulent discharge from the os will remain. Smears may or may not contain organisms resembling the gonococcus. Exacerbations, particularly in relation to menstruation and childbirth, may occur. In this "lighting up" process, the infection may spread from one structure or area to another.

3. *The Stage of Pelvic Degenerative Lesions.* This is the end-result of the pelvic invasion. Persistent pain or vague discomfort, persistent, annoying and irritating leukorrhea, various forms of menstrual disturbance which prognosticate an early pathological menopause, and many other complaints drive the patient from physician to physician and from surgeon to surgeon.

As Stokes says, "The treatment in cases of this type must often be the operation euphoniously called 'hysterectomy plus bilateral salpingo-oophorectomy' or 'pan-hysterectomy.' After it the woman is usually told that a piece of one ovary was left (as it often is) so that she can still feel she is a woman." "To hear such a woman whisper timidly, uncomplaining, on the operating table: 'I do hope they'll fix me so I can have a baby'; and then to see her again a week later, after

they have told her the ovary story, is an experience to make the hardest turn away his face."

Gonorrhea deserves the opprobrious title, "The Scourge of Women."

The Treatment of Gonorrhea in the Male

The following outline of treatment is summarized from the Majority Report of the Male Clinical Committee which was made by Dr. Pelouze at the annual meeting of the American Neisserian Medical Society last May.

Anterior Urethritis. (1) Start local treatment at once. (2) Insist on patient cooperation, particularly the avoidance of sexual excitement, alcohol and prolonged physical exertion. (3) Treat only the anterior urethra. (4) Use from 1 to 10,000 to 1 to 5000 potassium permanganate solution or a silver protein. (Argyrol 5 to 10 per cent or protargol $\frac{1}{4}$ to $\frac{1}{2}$ per cent once a day.) (5) For hand injections use not more than $\frac{1}{4}$ oz. (6) Whenever possible the physician should carry out the treatment. (7) If this is not possible give the patient a $\frac{1}{8}$ to $\frac{1}{4}$ oz. blunt Asepto syringe and from $\frac{1}{4}$ to $\frac{1}{2}$ per cent protargol solution and instruct him carefully as to its use twice a day. (8) Take much time to educate him regarding the disease and its possible dangers to others. (9) Avoid biological preparations until they have been proved to be of real value. (10) Center the patient's attention upon the local attack of the disease rather than oral medication and make no needless restrictions in his diet.

Active Posterior Urethritis: (1) Stop all local treatment during the acute stage of posterior involvement. (2) Give oral anodynes and sedatives (bromides and hyoscyamus). (3) Advise hot hip-baths. (4) Do not use posterior urethral syringes while the gonococcus is present. (5) Advise the patient to rest, avoid heavy physical exertions, particularly with any quantity of urine in the bladder. (6) When the acute symptoms have subsided use the intravesical irrigations. (7) When it is safe to do so, start prostatic massage twice a week. (8) Continue prostatic massage until the prostatic secretion is normal.

Concerning the subject of proofs of cure, the committee would resort to the following methods of procedure in the stated proportions: (1) Urethral dilatation by sounds (51-6). (2) Consumption of alcoholic drinks (27-16). (3) Sexual excitement (35-19). (4) Study of stained urinary sediment (39-20). (5) Study of stained prostatic secretions (59-2). (6) Give patient slides for smears (43-3). (7) Use silver nitrate as provocative (42-19). (8) Inject vaccines (13-40). (9) Inject gonococcal filtrates (17-36). (10) Take cultures (16-33). (11) Complement fixation (23-32).

Finding their chosen criteria of cure negative, twelve would pronounce the patient cured and safe for coitus and eighteen would not. Twenty-four would urge the use of a condom and eight would not. And a sizeable group have other ideas upon both of these questions.

The Treatment of Gonorrhea in the Female

The following outline of treatment is condensed after Crossen.

Acute and Subacute Stages. The purposes of treatment are to prevent extension upward to the endometrium and the tubes, to eradicate completely the infection from the lower genital tract so that no infective discharge will remain, to relieve the discomfort attendant upon the inflammation and to prevent contamination of the patient's clothing and surrounding objects with the discharge.

If inspection shows that the process is apparently confined to the vulva, be careful not to carry the exam-

ining finger or the applicator or other instrument past the hymen or hymen remnants. Having secured the required specimen, the parts are cleansed and the affected surfaces painted with 25 per cent argyrol or 2 to 5 per cent protargol. The patient is instructed to take a warm lysol or permanganate antiseptic douche once or twice daily, and to remain in bed practically all the time as long as there are any acute symptoms, especially during menstruation and for some days after; to keep the bowels open with laxatives to diminish the pelvic congestion, no enema is permissible because of the danger of carrying the infection into the rectum; and to wear a large absorbent pad, burn when discarded and wash her hands after changing dressings. One pyridium tablet t. i. d. should be prescribed.

She may be directed to return for local treatment every second or third day unless she experiences much discomfort in walking. The local treatment seems to aid materially in diminishing the patient's discomfort and in hastening the subsidence of the inflammation. The treatment is repeated about once a week until all inflammation has disappeared from the effected surfaces, the intervals being gradually lengthened as improvement takes place.

Fever therapy is now being used with good results.

Chronic Stage. A chronic gonorrheal discharge is due to persistence of the specific inflammation in one or more isolated areas.

The treatment for a vulvovaginal duct or gland is an application of mild antiseptic solution once a week with a blunted hypodermic needle carefully introduced into the duct through which the solution is injected. If no decided improvement occurs after several applications, the affected duct with its gland should be extirpated. If an abscess forms it should be opened freely.

To treat infected Skene's glands, apply a pledget of cotton soaked in 20 per cent cocaine solution, leave in place five minutes and inject a mild antiseptic solution with a hypodermic syringe. This injection is repeated every few days at the same time that other infected structures are treated. If inflammation persists, dilate the urethra and slit open the ducts and treat their interiors directly with the solutions already mentioned. In some cases there are other chronically infected areas that need painful treatment requiring a general anesthetic and the urethral ducts may be taken care of at the same time.

Serum and vaccine treatment have proved only partially successful. Practically no effect is obtained in the chronic cases in which gonorrhea infection has led to pronounced inflammatory changes in the pelvis. Diathermy yields good results in acute or chronic gonorrhea of the urethra or cervix or tubes.

OBITUARY

WILBUR F. McCONKEY, M.D.

In the Egyptian book of the dead, it is written, "He sought for others the good he desired for himself—let him pass on." It is a beautiful custom and eminently fitting that we should pause and pay loving tribute to those who have answered the last call to come up higher. The heritage that they leave us is the lighted torch of common good to lift up and carry on.

This hour of memory inspires us with ennobling hopes that we may think better, work better and live better, and there are many things in the lives of our departed associates that are worthy of emulation in their unselfish devotion to the cause of medicine. These departed

associates will inspire us to carry on, for there is no stronger influence than the compelling presence of the absent.

While we shall miss them in our Society we will not mourn but rather recognize their worth, and ourselves to promote the welfare of each other.

One of our departed members was Dr. Wilbur F. McConkey, who was born in Albany, Missouri, December 4, 1864. He attended the University of Pennsylvania and graduated from Rush Medical College, Chicago, in 1892. Dr. McConkey practiced in Bethany, Missouri, from 1892 to 1896 when he went to Hawaii with the United States Public Health Service. He became a member of the St. Louis Medical Society by transfer from the Medical Society of Hawaii in 1918. Dr. McConkey died of heart disease at his home on September 20, 1936. He is survived by a daughter, Miss Virginia McConkey, Knoxville, Tennessee, and a son, John R. McConkey, Maui, Hawaii.—F. W. V. in the *Bulletin* of the St. Louis Medical Society.

WILLIAM McKIM MARRIOTT, M.D.

I can think of only one person who would ridicule the idea of eulogizing McKim Marriott—namely, McKim Marriott himself. To him it would be a waste of time; and one who crowded what he did into fifty-two years had no time to waste. We, who knew his work and cherish his memory, need not eulogize him. We need only to follow the advice which he so often gave—and consider the facts.

"The Chief," as he was affectionately and respectfully called at Children's Hospital, was born in Baltimore on March 5, 1885. He died in San Francisco, November 11, 1936, of complications resulting from appendicitis. He is survived by his widow, a son and a married daughter.

He entered college, the University of North Carolina, at the age of 15. Graduating in 1904 he went with Professor Baskerville to teach chemistry at the College of the City of New York. He soon transferred to Dr. C. G. L. Wolf's Department of Physiological Chemistry at the Cornell Medical College, where he spent six years. Here he demonstrated his amazing ability to "do things on the side," for during these years he acted as student assistant, took his medical course, wrote several papers of real worth and carried on such by-activities as lecturing on and demonstrating radioactivity at the St. Louis World's Fair in 1904. Cornell gave him his M.D. degree in 1910.

More than any one person, Dr. Philip A. Shaffer has been McKim Marriott's counsellor. It was he who brought him, as his assistant in biochemistry, to the newly organized Washington University Medical School in 1910. It is characteristic of Dr. Marriott that during his four years in Dr. Shaffer's laboratory, he spent the summers as hotel physician in Yellowstone Park.

In 1914, just before the medical school moved to its present site on Kingshighway, Dr. Marriott went to Dr. John Howland at Hopkins to study clinical pediatrics and to bring to Dr. Howland the aid of his great knowledge of biochemistry.

It was Dr. Shaffer who in 1917 was largely responsible for the recall of Dr. Marriott to Washington University as Professor of Pediatrics, a bold stroke which met with unquestionable success. He built up a department of pediatrics which has given the country such men as Jeans, Cooke, Clausen, Hartmann. His own studies of athrepsia and anhydremia; his application of simple fundamental chemical principles to the erstwhile cumbersome and complex subject of infant nutrition,

were in themselves contributions of which anyone might be proud. But Marriott was at least four men in one: biochemist, pediatrician, administrator and teacher.

Dr. Shaffer tells, half apologetically, of persuading him to accept the nomination as Dean of the Medical School in 1923 on the resignation of Dr. Allison. His appointment to the deanship naturally interfered with his researches. But it brought to the Washington University School of Medicine and to medical education throughout the world the lucid thinking of this great and versatile man. One still wonders how he managed to attend and to contribute so much to the many committee meetings incidental to the deanship.

During this period he supervised and gave a considerable part of the semi-annual postgraduate course in pediatrics at the Children's Hospital, a course which quickly assumed national importance. He served on the editorial board of the *American Journal of Diseases of Children*; on the Council on Foods, and on Pharmacy and Chemistry of the A. M. A.

Like any other member of Dr. Marriott's department, I can testify to what was perhaps one of his most surprising characteristics, his availability as a friend. His work was interrupted at least as often as that of any of us practitioners. But his cheery "come on in!" did not betray the tension which must have been there, and which must have shortened his life.

In the Spring of 1936, before he became sick, he saw the impossibility of continuing to try to do the work of several men. He resigned his post, or posts, at Washington University and the St. Louis Children's Hospital, to become Dean and Director of Research at the University of California School of Medicine. He died in San Francisco only a few months later.

In the language of Paul of Tarsus, he "labored more abundantly than they all." I am sure that like Robert Louis Stevenson, he preferred to have his "life go foaming over a precipice" rather than "straggle to an end in the deltas."—P. J. W. in the *Bulletin* of the St. Louis Medical Society.

WILLIAM O. WINTER, M.D.

"In the universe honour that which is highest; and the highest is that which all else subserves, and which overrules all. So too within yourself honour the highest; it is that within you which all other powers subserve, and by which your life is disposed."

I quote these lines from Marcus Aurelius Antoninus "To Himself" as appropriately descriptive of the idealism of Dr. Winter. In musing leisure moments after evening office hours he often would invite me into the companionship found in the soliloquies of the great Emperor. However, not only in the classics, but equally as well in art, in literature, in music and in his own field of medicine did his conversation reflect the profoundest knowledge of the work of those men who were leaders in thought in their field. Through extensive traveling, with his family always as his companions, visiting art galleries both here and abroad, through diligent reading and intimate communing with the minds of the present and past, he revealed a store of knowledge that was most remarkable. The art of conversation was a treasure to him, revered by him for its own sake.

In contemporary medicine he belonged to that revered group, the family physician. Through active postgraduate work as late as 1928 at the Massachusetts General Hospital he kept abreast of the science of medicine, especially in its relationship to cardiology in which he was intensely interested for the last twenty years of his life. The art and the wit of medicine were admir-

ably combined by him with the science of medicine in counseling and advising the patient who sought his help. In his clinical examinations at the bedside he constantly sought to emulate the thoroughness of that giant in clinical research, Sir James Mackenzie.

Dr. Winter was born October 8, 1869, in Hamburg, Germany, of the traditional sturdy stock, and died on March 31, 1937. At an early age Dr. Winter immigrated to America with his parents and for a short while lived in New York and Philadelphia. Later the family moved to St. Louis. Here he received his early education later to enter Marion-Sims Medical College from where he was graduated in 1897. From 1900 to 1902 he was on the faculty of this institution and was lecturer on histology and microscopic anatomy. In clinical work he was for many years on the visiting staff of the City Hospital. Since 1900 he had been instructor in internal medicine for the Lutheran Hospital School of Nursing. He was a member of the medical staff of the Lutheran Hospital and had served as vice-chairman of the staff for the last seventeen years, and as chairman for a number of years previously.

At the meetings of the St. Louis Medical Society he was a regular attendant. He was a quiet listener and carefully weighed the material presented. He was one of those who staunchly believed that the Tuesday meetings should be devoted to scientific and clinical presentations.

It was a rare privilege to have known Dr. Winter. In what esteem he was held by his patients is best expressed by the words of one of them who lost a relative about the same time of Dr. Winter's death: "I mourn the death of my relative, but I weep at the loss of my friend and adviser, Dr. Winter, who had helped me over so many physical and mental problems." Truly those of us who were associated with him and knew him, were privileged, but "in the days to come must live in the shadow of his absence."

Dr. Winter is survived by his widow and two children, Helen and Robert.—From the *Bulletin* of the St. Louis Medical Society.

JOHN PAUL HOFFER, M.D.

I consider it an honor and a privilege to present to you the biography of Dr. John Paul Hoffer. He was born on August 7, 1867, in Lomar, Germany. His parents were John Henry and Mary Dick Hoffer. He graduated from the preparatory school at Sieburg, Germany, and later attended the University of Bonn, Germany. He visited and established his residence in St. Louis in 1888. This country appealed to him and he became a naturalized citizen on October 19, 1894. He matriculated at the medical department of Washington University of this city in 1888. On March 10, 1892, he received his diploma as a doctor of medicine.

I became acquainted with Doctor Hoffer the year of his graduation. I was a boy who lived near the doctor's office. He was a tall, friendly and handsome gentleman. My family, as well as myself, became friends of Dr. Hoffer. As time went on, this friendship grew closer and we looked upon him as a member of our family. This attachment was mutual but not unique, for since his death a number of mutual friends expressed themselves in the same manner. He was not a research worker and I do not recall any papers that he wrote on medical subjects. In fact, his sole interest was centered on his family and patients.

In 1895 he married Emma Anthony, one of our neighbors. They had two sons, Henry and Paul, both at present well known attorneys in St. Louis. Mrs. Hoffer died in 1929. Dr. Hoffer married a second time in 1932, Ida, the widow of the late Emil Cramer.

She was a great companion and survives him. Dr. Hoeffer was fond of trips to Germany. Each time he brought back a survey of what was going on in the clinics of Berlin. I profited much by his observations.

Dr. Hoeffer took suddenly ill with angina pectoris on January 24, 1937. I was called and hastened to his home. When I arrived he was dead. I am glad to have known Dr. Hoeffer and in him, I had a life-long friend. I am sure that he contributed much to the happiness of my life and to the lives of many others. —L. R. in the *Bulletin* of the St. Louis Medical Society.

FRANK R. FRY, M.D.

Francis Rhodes Fry, well known physician of St. Louis, died January 25, 1937. He was born in Cincinnati, October 1, 1853. In 1880 he began to practice medicine. For fifty years he was actively in practice, keeping up his interest in medicine in his chosen field of neurology and psychiatry; taking care of his patients until struck down by a coronary thrombosis while examining a patient in his office. This outlines the story of a unusual man whose active career and span of medical work is worthy of notice.

Dr. Fry's life almost includes the story of modern medicine and within it includes the story of the specialties of neurology and psychiatry. In his life time as a physician he saw and felt the great discoveries and the drives and trends of the modern conception of diseases. He saw the foundation laid of the specialties of neurology and psychiatry and in his way became a part of that development. A life lived actively and receptively toward the changes and revaluations of medicine and particularly of nervous and mental diseases is in need of a more detailed study than is possible here. That it cannot be done lies within the personal characteristics of Frank Fry himself. He was a reticent, somewhat inarticulate man, modest, shy and retiring. He has left little of a documentary nature upon which a biographer might depend for his data. What he thought of things, how he reacted to the changing moods of the time he lived through, are matters that can only be speculated about—not known.

He was a physician much respected by his friends and colleagues. His patients throughout his long professional life loved him and clung to him persistently.

In his clinical work Frank Fry felt very keenly the importance of personality. He also reflected in his attitude toward his patients some of the things that are at the present time described as the psychobiological attitude.

He was a descendant of the Fry family which settled at East Greenwich, R. I., in the 17th century. His father was a distinguished clergyman of the Methodist Church and for twenty years was editor of the *Central Christian Advocate* in St. Louis.

He prepared for college in the old Smith Academy in St. Louis, graduated from Ohio Wesleyan University with an A.B. in 1877 and an A.M. in 1880. Graduated from St. Louis Medical College in 1879 and after a year's internship in the City Hospital began the practice of medicine. He was demonstrator of anatomy from 1881 to 1888, professor of anatomy from 1880 to 1900 and professor of diseases of the nervous system from 1890 to 1921, when he retired from teaching as Professor Emeritus of Neurology.

Dr. Fry was a member of almost all of the special societies of neurology and psychiatry and in 1904 was made president of the American Neurological Association, a distinction that reflected the universal acknowledgement of his pioneer work in developing the specialties of neurology and psychiatry in the middle west. Dr. Fry was the first real representative of these spe-

cialties in St. Louis. He early established the line between the clinical neurologist and psychiatrist and what was formerly called an alienist. He made it clear by his work, by his published papers and by his presentation of cases in the medical society and his discussions that the neurologist and psychiatrist was something more than a professional adjunct to the courts of law. He further stood for the fact that there was a place in the medical practice of a large city for a man who chose to devote himself to the study and care of neurological and psychiatric conditions, much in the same way as the internist or surgeon might in his particular field. This was a radical departure from the customary attitude of alienists in the territory in which Dr. Fry's influence extended.

The writer of this biography could find among Dr. Fry's papers no bibliography of his published contributions. They were chiefly clinical and were scattered throughout many western medical publications. He wrote on Parkinson's disease, on progressive muscular atrophy, on unusual types of tabes dorsalis, multiple sclerosis and other characteristic lesions of the central nervous system which are not customary material seen in clinics and hospitals. He was particularly interested throughout his later professional life in problems of paresthesias and had devoted a great deal of earnest study to the interpretation of this sensory phenomenon.

He was particularly hospitable and friendly to the young men who came to St. Louis to follow his specialty. There is scarcely any one here in the field of neurology and psychiatry who can fail to remember the encouragement and friendliness of Frank Fry in the early period of his practice.

In the death of Frank Fry, St. Louis loses a worthy and much beloved figure. Through the long period of his actual practice he has been a friend and medical advisor to his patients, a generously minded colleague to his fellow practitioners and thoughtful and scholarly in his attitude to his own specialty. He leaves behind a beautiful memory.—S. S. in the *Bulletin* of the St. Louis Medical Society.

THOMAS JAMES COLLINS, M.D.

Dr. Thomas J. Collins, Caruthersville, a graduate of Loyola University School of Medicine, Chicago, 1918, died at the Methodist Hospital in Memphis of pulmonary thrombosis on April 1, aged 46.

Dr. Collins was born at Cape Girardeau. He attended the Southeast Missouri State Teachers College and the University of Wisconsin before beginning his medical training. He began his practice in Caruthersville immediately after obtaining his medical degree and remained there until his death.

During the World War he served as first lieutenant of the medical corps. He was major of the Medical Corps of the 140th Infantry of the Missouri National Guards at the time of his death and a military escort took part in the funeral service.

He had served the Pemiscot County Medical Society in several capacities, being president of the Society twice.

He is survived by his widow, Mrs. Zaida Lewis Collins, a son, his mother and a sister.

JAMES I. ANDERSON, M.D.

Dr. James I. Anderson, Warrensburg, a graduate of Vanderbilt University School of Medicine, Nashville, 1882, died at his home on June 14, 1937, after several months illness following a paralytic stroke, aged 77 years.

Dr. Anderson was born in Warrensburg and spent

his early years in several Missouri towns. He attended the Teachers College at Warrensburg before beginning his medical studies. He immediately began his practice in Warrensburg and a few years later took post-graduate work in New York.

Dr. Anderson was one of Warrensburg's oldest native born citizens. His mother was the daughter of the county's first school teacher. Dr. Anderson had practiced in Johnson County for a half century and was well known and well loved throughout the county. For several years he was handicapped by ill health but many of his patients came to his home for medical service after he was unable to make calls.

He was active in politics and civic affairs throughout his life. He was president of the Board of Regents of the Teachers College for twelve years. During the World War he was a member of the selective draft board.

Dr. Anderson was a charter member of the Johnson County Medical Society. He was elected an honor member of the Society in 1930.

Surviving are his widow, Mrs. Elizabeth Plummer Anderson, two sons and two daughters.

HARRY POTTER HANING, M.D.

Dr. Harry Potter Haning, Warrensburg, a graduate of Marion-Sims College of Medicine, St. Louis, 1899, died at the Warrensburg Clinic of a heart attack on April 12, aged 64 years. He had suffered several attacks during the winter.

Dr. Haning was born in Ottumwa, Iowa, and attended the Iowa State College at Ames before beginning his medical studies. He practiced in Purdin for twenty-seven years, then attended Tulane University of Louisiana School of Medicine, New Orleans, doing special work in eye, ear, nose and throat. He went to Warrensburg in 1932, confining his practice to his specialty.

He is survived by his widow, Mrs. Edna May Hubbard Haning, and one brother, Dr. M. L. Haning, Browning.

ERNEST GUTHRIE MARK, M.D.

Dr. Ernest Guthrie Mark, Kansas City, widely known as a specialist in urology, died June 7, 1937, at his home.

Born April 20, 1878, in Washington County, Ohio, Dr. Mark was graduated in 1899 from the University of Louisville, Louisville. Coming to Kansas City October 2, 1901, he was elected to a membership in the Jackson County Medical Society eight days later. Dr. Mark served as a lecturer on genito-urinary diseases at the old University Medical College. He was a member of the Kansas City Southwest Clinical Society and honorary member of the Kansas City Academy of Medicine, a fellow of the American Medical Association, the American Urological Association and the American College of Surgeons. Dr. Mark had written thirty-four articles dealing with urology for medical publication, as well as one book on the subject.

For a number of years Dr. Mark was chief of the urological staff at the Kansas City General Hospital and the interns who had the good fortune of being on his service will remember him as a most interesting and instructive teacher.

For some time Dr. Mark had been suffering from a heart ailment, but up to the time of his death had continued in active practice. Besides his daughter,

Miss Mary F. Mark, 16 years old, he leaves no close relatives.—From the Jackson County Medical Journal.

In the obituary of Dr. M. P. Overholser, Harrisonville, which was published in the August JOURNAL, it was stated that Mrs. Fanny Long Overholser survived. Mrs. Fanny Long Overholser, mother of the two surviving sons, died in 1919 and Dr. Overholser was later married to Miss Leila Britt who survives him.

Books for Leisure Moments

I do not know where Charles Elton Blanchard, M.D., got the material for "Dr. Betterman's Diary" (Medical Success Press) but he has succeeded in putting together a collection of good horse sense. Written in the vernacular, this account purports to be the experiences and philosophical reflections of the good doctor in the forty years elapsing after the Civil War. From it all the reader is to judge that no matter how bad things seem now, they were worse a few years ago, that there is still hope for us and for the world.

B. Y. G.

That there are no bad children is the opinion of Dr. Erwin Wexberg, the Director of the New Orleans Institute for Child Guidance, who with Henry E. Fritsch has written a splendid discussion of the subject under the title "Our Children in a Changing World" (MacMillan). Children are only the product of their environment, manifestations of the complex reactions resulting from their contact with themselves, their home, their school and their community. Since the earliest years of the child's life are spent at home and since these are his most impressionable years, it is to be expected that in this immediate relationship of parent and child most of the latter's asocial, unsocial or antisocial tendencies arise. Too often children are treated not as human beings but as toys, gadgets with which to fulfill all of the unsatisfied whims anticipated by thwarted parents.

The education of a child aims at the development of four cardinal qualities: Independence, courage, a sense of responsibility and a well developed social feeling. Unfortunately for the child and for society the home training of many children leads to the development of the opposites of these attributes, i. e., dependence, timidity, utter irresponsibility and a feeling only for self. "No one has a right to the claim that he has discharged his duty who cannot truthfully say that he has disturbed the child's development as little as possible, without fettering his native adaptability and without impressing upon him any of his own (i. e., the parent's) limitations and inhibitions. No one has a right to tell his child how to live."

Too much thinking is done for the child; too much is planned for him; too much is expected of him; too much minute supervision is given him; too often the parent seeks to have his child accomplish all the great things which he himself has failed to realize. All of this does not lead to the growth of a child but to the development of an automatism ill adapted to the problems of living; it does not lend itself to the evolution of an individual.

Wexberg divides his book into three parts. The

first, dealing with personality and environment, delineates the factors that have to do with the growth of the individual. The second part describes the types of children, the bad habits which improper handling encourages and the nervous symptoms which may serve as manifestation of these bad habits. The third and final section of the book is one that I should like to see every prospective parent study. I would be willing to see it a requirement for parenthood for in some thirty pages is to be found a succinct statement on the handling of a child, directions looking toward its rearing as an entity endowed with untold possibilities, capable of achievement of happiness from living and having lived.

One criticism that might be directed against the book lies in the choice of illustrative case reports. Wexberg makes the correction of the personality problems of childhood sound too easy. All too frequently he chooses for presentation the case of a child cured of a bad habit by one or two visits to his clinic. A 9 year old boy was cured of bedwetting, for example, by providing him with a set of clean night clothes and bed sheets with the instruction that he was to change the bed the next time he wet. Fortunately for the psychiatrist this boy "never had the opportunity to show his bed-changing talents." Another criticism arises in the author's attitude toward spanking; he seems to look upon it as something archaic, unbecoming of twentieth century child science. I have never been able to feel that anything but good could come from the judicious application of one part of the parent's anatomy to that part of the child's anatomy which was both designed and padded to receive it.

B. Y. G.

For some years I have had a suspicion that the acquisition of healthiness is a good investment. But I could not tell you just why, just what healthiness would do for one that unhealthiness would not do, how it would affect the ability to progress well in the world, how it would make life more enjoyable, how it might enable one to actually get more pleasure out of living. For these reasons, "Healthy Growth" (University of Chicago Press) by Martha Crumpton Hardy and Carolyn H. Hoefler proved more than ordinarily interesting and instructive. Here is an intensive study of a state of healthiness as compared with a state of unhealthiness. Though statistical analysis permits didactic estimates of the value of health, what it means from thirty or forty different points of view, what the resolution of over two hundred pages of reports, class room examinations, gradings, physical examinations, a variety of tests on each of 409 children, showed. Teachers, parents, physicians, psychologists, social workers, children, class room instruction, individual instruction, individual conferences, ceaseless follow-ups, all of these enter into this exhaustive determination of the value of health.

The most important single factor in attaining and maintaining health seems to lie in the selection of healthy parents; healthy not only at the time of conception but parents who maintained their health in the ensuing years. The breeding of fine race horses and rearing of vigorous children seem to have something in common. The second most important factor in this health business seems to lie in the selection of parents genuinely interested in rearing healthy children and financially able to provide the sustenance necessary to the attainment of that end. And, finally, the individual who seeks health must make a thorough study of those factors of diet, bodily development, rest and social activity that make for health; he must make rig-

orous application of all these principles to himself. Hardy and Hoefler prove that the results, gauged from any point of view, will be distinctly worth while.

They chose Joliet, Illinois, an industrial city of about 60,000 persons, for their investigations. They examined 409 children in the third grade of the public schools, divided them into groups, interviewed parents seeking cooperation, measured and tested this group of children at regular intervals. To some students teachers offered intensive health instruction supplemented by careful physical examinations, conference between parent and physician, between child and physician, between social workers and parents, all to the end that optimal habits of living might be developed. The rest of the children, most of them those whose parents did not display any special interest looking toward the development of these optimal habits of living served as controls.

The importance of such a study is indicated in the fact that approximately 40 per cent of these children had rachitic signs, that only two thirds of them consumed an adequate amount of milk and vegetables, that only half of them ate an adequate amount of fruit, that a fourth of them secured an insufficient amount of sleep. Over a period of twelve years the investigation continued, until these children had entered the high school.

The results prove conclusively that health instruction, the development of optimal habits of living paid, and paid well. Intelligence quotients, the measure of innate ability to learn, educational quotients, the measure of what had been learned, accuracy and speed of performance, social adaptability, intelligent use of leisure time, gain in weight and height, absence of dental caries, all of these factors were definitely increased in the health instructed group. Consideration of the probable error involved in these analyses leads to the conclusion that the results are of statistical significance. From every point of view Hardy and Hoefler make it clear that the practice of good health habits, once they have been learned, makes for greater accomplishment in life, greater pleasure in living; and it is to be expected that the children who benefited by this instruction will make greater contributions to the community welfare than their less fortunate classmates.

"Healthy Growth" is a book to be read and reread, pondered over and digested by any person interested in the public welfare for it offers a fund of practical, useful, valuable information.

B. Y. G.

EXCESSIVELY RAPID HEART RATES

James Alexander Lyon, Washington, D. C. (Journal A. M. A., April 24, 1937), reports a case in which a ventricular rate of from 310 to 313 beats per minute was recorded electrocardiographically. This rapid rate occurred during an attack of streptococcic meningitis in an infant 4½ weeks of age. When the patient came to necropsy three weeks later the heart was found to be grossly normal. A microscopic examination of tissue showed no evidences of infection or fibrosis of the heart muscle. Sixteen cases having heart rates of approximately 300 beats per minute were collected from the literature. The arrhythmia presented in the electrocardiogram in the author's case was interpreted as paroxysmal auricular flutter with one-to-one response and intraventricular block due to fatigue of the heart muscle. A study of the cases of excessively rapid heart rates collected from the literature revealed the difficulties of interpreting such arrhythmias.

COUNCILOR DISTRICT AND SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.
Chariton County Medical Society, December 1, 1936.
Ste. Genevieve County Medical Society, December 15, 1936.
Dent County Medical Society, January 8, 1937.
Lincoln County Medical Society, February 16, 1937.
Benton County Medical Society, February 26, 1937.
Moniteau County Medical Society, March 29, 1937.
Barry County Medical Society, May 14, 1937.
Camden County Medical Society, May 14, 1937.
Morgan County Medical Society, May 14, 1937.

ASSOCIATE EDITORS: COUNCILORS OF
THE TEN COUNCILOR DISTRICTS

FIRST COUNCILOR DISTRICT

A. S. BRISTOW, PRINCETON, COUNCILOR
Buchanan County Medical Society

The Buchanan County Medical Society met on June 2 at 8 p. m. at the Missouri Methodist Hospital, the president, Dr. Charles Greenberg, presiding.

A letter from Dr. A. S. Bristow, Princeton, Councilor of the First District, discussing the adoption of the proposed resettlement program was read.

Dr. E. E. Wadlow, chairman of the program committee, announced that the Medical Society-Auxiliary party would be held at the St. Joseph Country Club on June 10.

Dr. J. I. Byrne read a paper on "Cancer of the Colon." Dr. Byrne gave a most interesting and complete discussion of his subject and it was thoroughly discussed by Drs. H. L. Charles, Atchison, Kansas; C. H. Wallace, Gregg Thompson, L. Paul Forgrave, S. Earl Senor and closed by Dr. Byrne.

MEETING OF JULY 7

The Society was called to order at the Missouri Methodist Hospital at 8 p. m. by the president, Dr. Charles Greenberg, with twenty-two present.

The following communications were read: A letter from the National Eugene Field Memorial asking for a contribution of \$25; a letter containing the rules

and regulations regarding the filing of birth certificates at the Health Department at the City Hall, and a letter from one of the members stressing the importance of registering state certificate numbers with the county clerk.

It was moved by Dr. W. T. Stacy and seconded by Dr. H. DeLamater that \$25 be donated to the National Eugene Field Memorial. The motion passed.

Inasmuch as the application of Dr. Meluney was returned to the secretary unsigned by the board of censors it was moved that the application be returned to them.

Dr. A. S. Bristow, Princeton, Councilor of the First District, gave a most interesting talk on the problems facing medicine today. It was discussed by Drs. H. E. Peterson and H. DeLamater.

The meeting adjourned at 9:15 p. m.

MEETING OF AUGUST 4

The Society was called to order at 8 p. m. on the roof of the Missouri Methodist Hospital by the president, Dr. Charles Greenberg, with twenty present.

A card acknowledging the flowers sent at the death of Dr. C. A. Good was read.

Dr. A. S. Bristow, Princeton, Councilor of the First District, spoke briefly and introduced Dr. Carl F. Vohs, St. Louis, Chairman of the Committee on Medical Economics of the State Association, who spoke on the plan for the medical care of resettlement clients in Missouri as outlined and presented by the Committee.

Mr. W. E. Hays, Director of the Federal Resettlement Regional Office, Indianapolis, Indiana, spoke on the governmental administration of the resettlement program.

The information given by the speakers elicited a brisk discussion of the subject which was entered into by Drs. P. J. Ross, Grant City; A. S. Bristow, Princeton; W. D. Holcomb, Eagleville; H. M. Clark, Platte City; N. R. Schuhmacher, Kearney; W. T. Elam, Forgrave, J. T. Stamey, A. H. Kelley, W. C. Meyers, J. M. Hughes and W. T. Stacy, St. Joseph.

Among visitors from other counties of the District were Drs. A. O. Gilliland and M. L. Peters, Cameron; E. C. Ambrose and F. P. Miller, Trenton; M. H. Rhoads, King City; H. M. Clark, Platte City; N. R. Schuhmacher, Kearney; P. J. Ross, Grant City, and W. D. Holcomb, Eagleville.

The meeting adjourned at 10 p. m.

O. EARL WHITSELL, M.D., Secretary.

FIFTH COUNCILOR DISTRICT

M. PINSON NEAL, COLUMBIA, COUNCILOR

In order to contact the officials of the county societies of the Fifth Councilor District at the earliest possible time the Councilor called a meeting at Columbia for the afternoon of July 21 including dinner.

The counties represented through attendance were: Audrain County, Dr. R. S. Williams, Mexico, Secretary; Boone County, Dr. M. E. Cooper, Columbia, Secretary; Callaway County, Dr. Henry Durst, Fulton, President; Howard County, Drs. W. R. Hawkins, Glasgow, President, and W. A. Bloom, Fayette, Secretary; Moniteau County, Dr. E. A. Kibbe, California, Secretary; Montgomery County, Dr. E. J. T. Anderson, Montgomery City, President, and Morgan County, Dr. J. Loren Washburn, Versailles.

Dr. Dudley S. Conley, Columbia, President of the Missouri State Medical Association, met with the group and entered into the discussions.

The purpose of this meeting was to establish a working organization, to present and discuss with the officials of the respective county societies some recent actions of the Missouri State Medical Association, of the Council and of the American Medical Association in order that this information might more speedily and with certainty reach the members of the respective component societies.

Other meetings similar to this will be held and it is the hope of the Councilor that enough vital interest will be aroused in these informal contacts that no official of a county society in the District will ever be absent.

SIXTH COUNCILOR DISTRICT

A. J. CAMPBELL, SEDALIA, COUNCILOR

Activities in the Sixth Council District have centered around the Resettlement Administration and meetings have been held in some of the counties of the District and meetings will be held in other counties. Meetings have been held by the Lafayette County Medical Society in Higginsville on July 20 and in Concordia on July 27 and by the Bates County Medical Society in Butler on July 21. The Lafayette County Medical Society, after a special meeting for discussion, decided against participation in the plan and other counties have not as yet reported final action.

Assisting in the meetings are Dr. R. C. Williams, Washington, D. C., and Mr. M. E. Hays, Indianapolis, both of the Resettlement Administration.

Lafayette County Medical Society

The Lafayette County Medical Society discussed the Resettlement Administration Rehabilitation program at a special meeting in Higginsville on July 20 with several representatives from the Resettlement Administration who explained in detail the purpose and plan of the program. A committee was appointed to investigate and try to formulate a plan. At the regular meeting of the Society at Concordia on July 27, after much discussion, the plan was rejected for the following reasons:

(1) It is our opinion that the Rehabilitation program will include only a small portion of the indigent farm group and only the upper strata of this indigent group for they are the only ones feasibly capable of being rehabilitated. This program has no provision whatever for the larger portion of the indigent farm group who have too low an income to be rehabilitated. Therefore, the major portion of the indigent farm group will still be the doctor's problem the same as before.

(2) It is our opinion that this would be only a minor stepping-stone to state medicine which we do not want.

E. M. MOORE, M.D., Secretary.

SEVENTH COUNCILOR DISTRICT

E. P. HELLER, KANSAS CITY, COUNCILOR

Officers, delegates and committee chairmen of the Jackson County Medical Society follow: President, Dr. Morris B. Simpson; president-elect, Dr. Ira H. Lockwood; secretary, Dr. Marvin L. Bills; treasurer, Dr. Ambrose E. Eubank. Executive council, Drs. B. Landis Elliott, Fred B. Kyger, Frank D. Dickson, Charles C. Dennie, Lindsay S. Milne, C. Edgar Virden, Hugh L. Dwyer. Board of Censors, Drs. Charles C. Dennie, Joseph E. Welker, A. B. Jones. Delegates to

Missouri State Medical Association, Drs. Morris B. Simpson, Clarence S. Capell, Hermon S. Major*, Edwin H. Schorer*, John E. Castles, Ralph R. Wilson, G. E. Knappenberger*, A. S. Welch*, B. Landis Elliott, E. Lee Miller, Herbert L. Mantz. (Alternates serving in place of starred names, Drs. James R. McVay, Julius Frischer, Herbert J. Rinkel, Ralph E. Duncan, Lawrence Jones, Ira Lockwood.) Committee chairmen: Program, Dr. Ralph E. Duncan; executive (finance), Dr. Frank R. Teachenor; editorial, Dr. E. P. Heller; building, Dr. M. J. Owens; emergency medical relief and civil works administration, Dr. E. H. Skinner; entertainment, Dr. Rexford L. Diveley; hall, Dr. Ralph E. Duncan; industrial relations, Dr. A. B. Jones; library, Dr. E. H. Skinner; junior library, Dr. B. G. Hamilton; medical economics, Dr. W. M. Ketcham; medical economics (assistant), Dr. J. R. McVay; medical milk commission, Dr. Damon O. Walthal; necrological, Dr. Lyle G. Willits; public health and welfare, Dr. John Aull; public relations, Dr. Carl R. Ferris; revision of constitution and by-laws, Dr. H. S. Valentine.

The Society was organized in 1874 with, it is believed, twelve charter members. Membership since has been: In 1888, 124; in 1898, 142; in 1907, 334; in 1917, 339; in 1927, 509; in 1937, 600.

The Society is now in summer suspension yet Dr. Simpson has succeeded in getting excellent attendance at called executive council meetings through June and July and much important progress has been made.

Mr. F. K. Helsby, the new executive secretary of the Jackson County Medical Society, has been functioning since his return from the Cape Girardeau Session, it being the capstone of a foundation based upon a trip to many important, active, modernized societies in the Middle West including a visit to the headquarters of the American Medical Association. His pleasing personality and the manner in which he has organized the headquarters of the Society has been a source of pride to those who chose him and an inspiration to the rest of us.

On August 15, as a part of the new business office approved for the Society in January, a Medical Business Bureau will begin to function. Here at last will center the activities we long have wanted but have lacked. It will have to do with credit rating, collections, arrangements for postpayment of bills and will be a center which may be called upon for business information, advice on purchasing of supplies, automobiles and a hundred other items needed by physicians and their families. It should not be long before Kansas City feels the mass purchasing power and economic influence of the organized profession.

A final word must be said for the strides being made in the matter of group hospitalization by the committee headed by Dr. J. Harvey Jennett. We already have a working central index of indigents. We will have our business office in full swing ere this is published and before 1938 we hope to be able to report a county-wide group hospitalization program in operation.

EIGHTH COUNCILOR DISTRICT

H. L. KERR, CRANE, COUNCILOR

The Eighth Councilor District will hold a meeting at the State Sanatorium, Mount Vernon, on Friday, October 29. An afternoon and evening program will be given, also a banquet at 6:30 p. m.

The program committee is composed of Drs. M. H. Black, Joplin; J. Stocker, Mount Vernon, and H. L. Hoover, Springfield. Dr. R. H. Runde, Mount Ver-

non, Superintendent of the Sanatorium, and the Councilor will look after the minor details.

Among those appearing on the program will be Dr. J. A. Meyer, Minneapolis, President of the National Tuberculosis Association, and Dr. F. A. Willius, Rochester, Minnesota, outstanding heart specialist.

All members of the Eighth Councilor District will receive due notice later. A large attendance is expected and a splendid program is promised.

BOOK REVIEWS

HEART FAILURE. By Arthur M. Fishberg, M.D., Associate in Medicine, Mount Sinai Hospital, New York City. Illustrated with twenty-five engravings. Philadelphia: Lea & Febiger. 1937. Price \$8.50.

This book deals with all the details of heart failure. The author correlates the views of many observers and investigators and adds from his own vast experience.

"Determination of the cardiac output, the velocity of blood flow, the venous pressure, the respiratory volumes, the circulating blood volume and the gas contents and reaction of the arterial blood have all contributed to the elucidation of the manifestation of heart failure."

These terms have been clarified so that the medical student can understand them.

The various types of heart failure are discussed along with their effect on the lungs, kidney, spleen, liver, heart and periphery. Especially fine are the chapters on the various valvular lesions, discussing in detail the modus operandi of the resulting heart failure. Pericardial pathology, shock, diabetic acidosis, coronary thrombosis, pulmonary embolism and acute infections are discussed in relation to their effect on the heart and circulation.

To complete the value of this book, adequate space is given to the treatment of heart failure, separating this phase into general and special measures.

The reviewer recommends this book to the student, to the general practitioner, to the specialist and to the teacher.

A. M. G.

PHYSICAL DIAGNOSIS. The Art and Technique of History Taking and Physical Examination of the Patient in Health and in Disease. By Don C. Sutton, M.S., M.D., Associate Professor of Medicine, Northwestern University School of Medicine; Attending Physician and Chairman of the Medical Division of the Cook County Hospital; Chief of the Cardiac Clinic, Cook County Hospital, Chicago; Attending Physician, the Evanston Hospital. With 298 illustrations and eight color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$5.00.

This volume presents the subject of physical diagnosis as the art of recognizing the signs of various anatomical and physiological abnormalities of disease as manifested throughout all parts and structures of the body. The functional and physical background of each abnormal condition is given concisely but adequately as an introduction to the consequent signs that result from the disease. These signs are stated accurately, extensively and with arresting interest. Numerous illustrations from anatomical, pathological and

radiological sources elucidate the text. Excellent plates of serial sections of the body and of anatomical regime have been incorporated.

Perhaps the most valuable part of the book consists in its emphasis on the fundamental importance of the processes of observation and their development; namely, inspection, palpation, percussion and auscultation. These methods of physical examination with an outline and the theory of taking histories, as part of physical diagnosis, lead to an excellent presentation of the general examination.

An early chapter, written by Irving S. Cutter, is devoted to the history of physical diagnosis, which should give the student a grasp of the growth of the art of recognizing disease by examination.

The author's own introduction presents in masterly manner the fundamental principles underlying the recognition of disease. It is an art to be acquired only by hard application and has, unfortunately for both physician and patient, been neglected in recent years for laboratory procedures with more spectacular appeal.

Both student and physician will find this work stimulating both in its point of view and in the facts and procedures which it presents.

W. B.

MEDICAL UROLOGY. By Irvin S. Koll, B.S., M.D., F.A.C.S., Attending Urologist, Michael Reese Hospital. With ninety-two text illustrations and six color plates. St. Louis: The C. V. Mosby Company. 1937. Price \$5.00.

This is a book of 431 pages designed for the general practitioner since it is felt by the author that the existing books on urology do not give sufficient detail of the facts which the doctor wishes to know. The book is evidently written mainly from the doctor's own experience although a considerable bibliography is given following many of the chapters. The author has tried to bring out the art as well as the practice of medicine. There may, therefore, be some question as to the approach and treatment of such conditions. Certainly, the treatment of gonorrhea described is a considerable departure from the use of gentleness which most of us have come to believe important in the treatment of this disease. The description of the destructive lesions of the genitalia is especially clear. The note of conservatism in the treatment of prostatic enlargement is commendable.

Most of the diagrams and photographs are original. The plates showing the pathology of the urethra through the urethroscope are excellent.

H. C.

RECENT ADVANCES IN GENITO-URINARY SURGERY. By Hamilton Bailey, F.R.C.S. (Eng.), Surgeon, Royal Northern Hospital, etc., and Norman M. Matheson, M.B., F.R.C.S., M.R.C.P., Surgeon, Central Middlesex County Hospital. With 89 illustrations. Philadelphia: P. Blakiston's Son & Co., Inc. 1936. Price \$5.00.

This is one of the "Recent Advances" series pertaining to urology written by English authors. It immediately commands respect by its authoritativeness. Brevity has been accomplished with no sacrifice to complete listings and summaries of the best universally accepted procedures in medical and surgical urology. Each section has a short but good bibliography. It is encouraging to note that many important advances in this specialty have originated with Ameri-

can urologists. The discussions on infections and urinary antiseptics are extremely useful. The surgical descriptions are accurate and the material is usefully arranged by anatomical systems. To the beginner or the specialist it is recommended for quick reference and listing of leading articles in various branches of urology. There is no section on venereal diseases.

L. S.

MATERNAL CARE. The Principles of Antepartum, Intrapartum, and Postpartum Care for the Practitioner of Obstetrics. Approved by the American Committee on Maternal Welfare, Inc. Prepared by Dr. W. C. Danforth, Dr. G. W. Kosmak, Dr. R. L. DeNormandie, and Dr. F. L. Adair. Chicago, Illinois: The University of Chicago Press. 1937. Price: Paper bound edition 25c; Cloth bound edition \$1.00.

This is the smallest volume with the largest amount of accurate information that has been offered to the profession. There is scarcely a condition or a situation that is seen in the prenatal, natal or postnatal periods that is not mentioned, and with each problem there is a helpful suggestion.

While a general physical examination with pelvic measurements is considered necessary in every patient, stress is placed on the importance of routine blood examinations for anemias and syphilis. Also the importance of routine prenatal visits is pointed out that diet, urine examinations, blood pressure estimations and weight may be known at all times. It is suggested that all data be recorded at each visit not only for accurate information but also for future reference and comparison.

Dr. Adair's discussion of the natal period carries maternal welfare gospel. No routine is to be followed and a normal delivery is urged for every patient. All methods or means not in keeping with fundamentals are to be avoided since mortality and morbidity follow interference. It is explicitly pointed out that conditions, arising in the prenatal and natal period, must be followed postnatally to their ultimate recovery. Also it recommends that sufficient follow up care, even in normal cases, be given—that mothers may not be penalized for having had children.

This publication is in reality a small volume on modern obstetrics. So definite are the conditions mentioned in each section and so accurate is the information given, that this publication should command itself to every physician in the United States caring for expectant mothers.

B. G. H.

THE TREATMENT OF DIABETES MELLITUS. By Elliott P. Joslin, M.D. (Harvard), M.A. (Yale), Medical Director, George F. Baker Clinic, New England Deaconess Hospital; Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital. With the Cooperation of Howard F. Root, M.D., Pricilla White, M.D., and Alexander Marble, M.D. Sixth edition, thoroughly revised. Illustrated. Philadelphia: Lea & Febiger. 1937. Price, \$7.00.

Two and a half million people now living in the United States will have diabetes before they die; half a million are already diabetic. The disease has already displaced influenza as a cause of death in this country. In large measure diabetes is a preventable disease; in larger measure it is a disease in which the distressing and agonizing complications may be avoid-

ed. Yet the profession sometimes views it with relative indifference.

Dr. E. P. Joslin of Boston has done more than any other individual to bring diabetic management to the notice of the profession. With the cooperation of the Metropolitan Life Insurance Company he has carried on revealing statistical analysis in relation to the spread of the disease. Perhaps one measure of the esteem in which he is held by the profession is reflected in the continuous demand for this his "larger" book intended for the profession as well as for his "smaller" book intended for the layman who has the disease. The present and sixth edition was made necessary, Joslin writes, by the discovery of protamin insulin; he sees in this preparation the best therapeutic agent with which to control the diabetic metabolism; he considers it the drug ideally adapted to the use of the general practitioner and much of the new volume is taken up with directions for its use. As in all previous publications of this monograph the author's intense preoccupation with the diabetic and his multifold problems is much in evidence. He writes with the sure touch of the master clinician who has been in intimate contact with the patient during the fluctuating course of a disease lasting a lifetime. The practicing physician will find his counsel clearly presented in a manner making it easily adaptable to the requirements of his own patients.

B. Y. G.

THE THYROID AND ITS DISEASES. By J. H. Means, M.D., Jackson Professor of Clinical Medicine, Harvard University, and Chief of the Medical Services, Massachusetts General Hospital. Being an account based in large measure on the experience gained in the Thyroid Clinic of the Massachusetts General Hospital. Philadelphia: J. B. Lippincott Company. 1937.

The Massachusetts General Hospital is notable for its many contributions to the science and art of medicine. To its imposing record of accomplishment may now be added this new work by Means, a pioneer member of the metabolic group of the hospital. He has produced a monograph likely to prove exceedingly valuable to any physician interested in the thyroid gland and the multiplicity of functions it serves in the human economy. Its 600 pages of small print are enlivened by the dry wit of its author; for example, after stating that his researches were interrupted by the Great War of 1917, Means gives the reader leave to use this calamity as propaganda in behalf of peace. In his crisp style the author relates the chemical, physiologic and anatomic functions of the gland to the clinical manifestations of its disorders. In that way, he insists, the reader will be given the philosophic approach necessary to enable him to solve the riddle of the thyroid.

The discussion on the preventive use of iodine is particularly enlightening since there is sometimes opposition to the indiscriminate use of iodized salt for goiter prophylaxis. Means insists that he has never seen a case of thyrotoxicosis which could be traced to the ingestion of such preparations. The great rarity of such disturbances in the large syphilis clinics where iodine is routinely employed in large doses lends force to these observations. A separation chapter is devoted to the use of thyroid substance in disease states not of thyroid origin. All in all, this volume will prove a useful and informative addition to the library of any physician even remotely concerned with disturbances of the thyroid.

B. Y. G.

BOOKS RECEIVED

DIET MANUAL ST. MARY'S HOSPITAL. Compiled by Sister Mary Victor, R.N., B.S., Director of the Department of Nutrition St. Mary's Hospital, Rochester, Minnesota. Rochester, Minn.: St. Mary's Hospital. 1937.

PERSONAL HYGIENE. By C. E. Turner, M.A., Dr.P.H., Professor of Biology and Public Health in the Massachusetts Institute of Technology. With eighty-four text illustrations and three color plates. St. Louis: The C. V. Mosby Co. 1937. Price \$2.25.

HISTORICAL NOTES ON PSYCHIATRY (Early Times—End of 16th Century). By J. R. Whitwell, M.B., Hon. Lib., Royal Medico-Psychological Association, Late Med. Supt. St. Audry's Hospital, Melton, Suffolk. Philadelphia: P. Blakiston's Son & Co., Inc. 1937. Price \$5.00.

DIETETICS SIMPLIFIED. The Use of Foods in Health and Disease. By L. Jean Bogert, Ph.D., Consultant in Nutrition, Delineator Institute, New York City, etc. With Laboratory Section by Mame T. Porter, M.A., Head of Home Economics and Nutrition, Department of Public Welfare, Utica, N. Y., etc. New York: The Macmillan Company. 1937.

INFANTILE PARALYSIS AND CEREBRAL DIPLEGIA. Methods Used for the Restoration of Function. By Elizabeth Kenny. With Foreword by Herbert J. Wilkinson, Professor of Anatomy and Dean of the Faculty of Medicine, University of Queensland. Australia: Angus & Robertson Limited, 89 Castlereagh Street, Sydney. 1937. Price 21/-.

INTERNATIONAL CLINICS. A Quarterly of illustrated clinical lectures and especially prepared original articles. By leading members of the Medical Profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Maryland. Volume II. Forty-seventh series. Philadelphia Montreal London: J. B. Lippincott Company. 1937.

CLINICAL ALLERGY Due to Foods, Inhalants, Contactants, Fungi, Bacteria and Other Causes. Manifestations, Diagnosis and Treatment. By Albert H. Rowe, M.S., M.D. Lecturer in Medicine in the University of California; Chief of the Clinic for Allergic Diseases of the Alameda County Health Center, Oakland, California; President of the Association for the Study of Allergy, 1927-1928. Philadelphia: Lea & Febiger. 1937. Price \$8.50.

OPERATIVE SURGERY. By J. Shelton Horsley, M.D., LL.D., F.A.C.S., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va., and Isaac A. Bigger, M.D., Professor of Surgery, Medical College of Virginia, Surgeon-in-Chief, Medical College of Virginia Hospitals, Richmond, Va. With Contributions by C. C. Coleman, M.D., F.A.C.S., John S. Horsley, Jr., M.D., Austin I. Dodson, M.D., F.A.C.S., and Donald M. Faulkner, M.D. Volumes 1 and 2. Illustrated by Miss Helen Lorraine. Fourth edition. St. Louis: The C. V. Mosby Company. 1937. Price \$15.00.

THE NORMAL ENCEPHALOGRAM. By Leo M. Davidoff, M.D., Assistant Professor of Neurology in the College of Physicians and Surgeons, Columbia University, and Cornelius G. Dyke, M.D., Assistant Professor of Radiology in the College of Physicians and Surgeons, Columbia University. Illustrated with 149 engravings. Philadelphia: Lea & Febiger. 1937. Price \$5.50.

ORAL DIAGNOSIS AND TREATMENT PLANNING. A Text for the Dental Student, a Reference Book for the Practitioner and Medical Student. By Kurt H. Thomas, D.M.D., Chas. A. Brackett Professor of Oral Pathology in Harvard University; Oral Surgeon to the Brooks Hospital, etc. With 533 illustrations, seventy-one of them in colors. Philadelphia and London: W. B. Saunders Company. 1937. Price \$6.00.

ENDOCRINOLOGY, Clinical Application and Treatment. By August A. Werner, M.D., F.A.C.P., Assistant Professor of Internal Medicine, St. Louis University School of Medicine; Associate Physician, St. Mary's Group of Hospitals; Physician Endocrine Clinic, St. Louis City Hospital; Staff Member, St. Louis City Hospital, Sanitarium and Infirmary; St. Louis Training School for Mentally Defective Children and the Missouri State Hospital No. 1, Fulton, Missouri. Illustrated with 265 engravings. Philadelphia: Lee & Febiger. 1937. Price \$8.50.

HUGHES' PRACTICE OF MEDICINE. Revised and Edited By Burgess Gordon, M.D., Associate Professor of Medicine, Jefferson Medical College, etc., With Sections on Nervous and Mental Diseases by Harold D. Palmer, M.D., Neurologist Outpatient Department, Pennsylvania Hospital, etc.; and on Diseases of the Skin by Vaughn C. Garner, M.D., Assistant Professor of Dermatology and Syphilology, University of Pennsylvania, etc. Fifteenth edition. With sixty-one illustrations. Philadelphia: P. Blakiston's Sons & Co., Inc. 1935. Price \$5.00.

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE. A University of Toronto Text in Applied Physiology. By Charles Herbert Best, M.A., M.D., D.Sc. (Lond.), F.R.S. (Canada), F.R.C.P. (Canada), Professor and Head of Department of Physiology, Associate Director of the Connaught Laboratories, Research Associate in the Banting-Best Department of Medical Research, University of Toronto, and Norman Burke Taylor, M.D., F.R.S. (Canada), F.R.C.S. (Edin.), Professor of Physiology, University of Toronto. Baltimore: William Wood & Company. 1937. Price \$10.00.

CLINICAL ENDOCRINOLOGY. By Samuel A. Lowenberg, M.D., F.A.C.P., Clinical Professor of Medicine, Jefferson Medical College, Philadelphia; Assistant Visiting Physician, Jefferson Hospital; Visiting Physician, Philadelphia General Hospital, Northern Liberties Hospital, and Eagleville Sanatorium for Consumptives; Consulting Physician to the Philadelphia Hospital for Contagious Diseases; Author of "Diagnostic Methods of Interpretation in Internal Medicine." Foreword by Hobart A. Reimann, M.D., Professor of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia. With 194 illustrations and thirty-seven charts and tables. Philadelphia: F. A. Davis Company. 1937. Price \$8.00.

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CONSERVATIVE OPERATIONS FOR NONMALIGNANT DISEASE OF THE UTERUS ATTENDED BY HEMORRHAGE

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Today, after some two thousand years, civilization is beginning to change its attitude toward women. Even today our greatest handicap is that the ecclesiastics still think the chief function of the human female is the raising of babies. That is the truth. Those of us who have to reside in a more or less single female age realize that one of her chief functions is to keep us males in the straight and narrow. In order that she accomplish this salutary end it is necessary that she have good health including a stable nervous system.

The actions of our profession would seem to indicate that we are still supersaturated with the ecclesiastical idea that when the female genital organs are no longer capable of performing their function of reproduction they are of no further use. We forget that the genital organs are the balance wheel of the woman's constitution and by removing them we destroy her nervous balance. Within a day's routine when confronted by a nervous wreck produced by oophorectomy, one of my associates said to the husband, in the absence of the patient, that if doctors had to treat the patients after the removal of ovaries they would be more conservative. The husband blurted out with much emphasis: "If they had to live with them, I know mighty well they would be more careful of what they remove." It is the contemplation of these hopeless wrecks that has been the foundation of my efforts in conservative surgery on the pelvic organs. Anything that will preserve menstrual function, and with it the nervous balance of the female, is worthy of our most earnest efforts. This is tantamount to saying that the

removal of both ovaries is never justified. This can be avoided always except in cases of malignancy and in those cases when the duration of life after operation is so brief that it matters little what one does. In this connection it is permissible to remark that some surgeons still believe they are conserving something when they preserve the ovaries by doing a supracervical hysterectomy.

My first efforts at conservative myomectomy were stimulated and planned while I held a myoma in my hand at the operating table. About thirty years ago I was operating on the daughter of an old friend of mine, a girl 23 years old, a talented, wonderful girl, who had a fibroid about as large as a croquet ball. I knew what it meant to remove that uterus; knew it would be the wrecking of a very brilliant girl whom I regarded almost as my own daughter. I concluded to do a conservative operation to preserve the menstrual function at any cost. It was a single tumor in the anterior wall of the uterus. I therefore removed the tumor and I had left only a large flap of uterine wall in the center of which was a patch of mucosa the size of a watch crystal. I folded the uterine wall over the mucosa and thus made a pretty respectable looking uterus out of it. She recovered fully and in later years was a nationally known person in her sphere until she was about 44 years of age and in the menopause and then she married a university professor with six children. But that was no fault of the surgery; my operation was a brilliant success. This was the start of the principle that I have pursued ever since.

I wish to confine my remarks today chiefly to those nonmalignant disturbances which cause hemorrhage. These present the most common indication for most of our conservative operations. I shall exclude the consideration of hemorrhages in young girls because they are of endocrine origin and surgery is contraindicated. These patients get well of their own accord if the family doctor will keep them away from the specialist.

The hemorrhages, which I wish to discuss, occur during the parous period and are due to two conditions: First, those cases in which the mucosa is hyperplastic and projects into the uterine cavity, formerly regarded as inflammatory but which we now ascribe to endocrine origin; second, those due to the encroachment of myomas upon the cavity of the uterus.

Hemorrhage due to thickened uterine mucosa may be uniform over the entire uterine cavity but is most pronounced in the fundus although very often polypoid projections are formed. These conditions are most common near the menopause and this alone, in the absence of palpable tumors of the uterine wall, furnishes a presumptive diagnosis and usually is sufficiently accurate to warrant an operation. The curet usually produces abundant evidence of a thickened mucosa. At any rate, the curet will exclude malignancy. The feel of the curet is perfectly typical; there is no need to bother the pathologist. There is but one way to make a certain diagnosis possible and that is to open the uterus and look at the mucosa and see. The curet is uncertain because a polyp will slide around the instrument and one does not know it is there unless one looks. However, the history is sufficient to make a diagnosis and if one does a defundation one will find out whether a polyp is present or not. In younger women an exact diagnosis is necessary. This can be done by dilating the cervix sufficiently to permit a digital examination and if this does not give sufficient evidence it is a small matter to split the uterus which makes direct inspection possible. I formerly employed this incision frequently, usually under local anesthesia, but added experience has made it rarely necessary; however, its use will add greatly to the education of the young surgeon.

The lesion having been diagnosed, the plan of campaign is easy. One cuts out the lesion and leaves the rest. One can do a high supracervical amputation from below leaving enough of the mucosa to carry on the menstrual function.

In most cases the diagnosis is sufficiently definite to permit an abdominal operation without the preliminary exploration of the uterus from below. In these cases one proceeds without preliminaries to the removal of the fundus. If one leaves about one inch or so of the uterine mucosa above the cervical canal, the bleeding will be controlled and the patient goes on to a normal menopause. This is the most satisfactory way to control the excessive bleeding so commonly observed at the menopause. It does not produce the unpleasant symptoms which so commonly follow the use of irradiation.

In myomas a similar operation is done. The

tumors, and the fundus if needed, are removed which allows sufficient mucous membrane to remain to carry on menstrual function. However, with large complicated myomas in women at the menopause there is less urgent indication for a conservative operation. The operation is technically more difficult but it must be remembered that it is always possible and should be done if the patient is a young woman. That there is added risk, particularly in women who have lost much blood over a long period of time, one must admit. The patients with chronic secondary anemias particularly bring some risk which is heightened by the longer operation of conservative myomectomy. These patients are nearly all at the menopause and it is better to do a supracervical amputation and be done with it. The point is that during those years when conservatism is most logically indicated the operation is relatively simple because the tumors are usually not large and there is no anemia. The old idea that a radical operation is required because of the possible development of sarcoma is false. Myosarcoma is an excessively rare disease, much rarer than the operation of hysterectomy even in the experience of the best operator.

The essential factor in the technic of conservative operations is that the flaps of the uterine wall one leaves must be so fashioned that they come together readily without undue tension. Otherwise the suture may cut through the soft uterine tissue leaving a stump to heal by granulation. The repaired line should be covered by the broad and round ligaments. Otherwise endometrial tracts may form and produce annoying complications following operations and may require operative removal. A secondary operation is always unpleasant no matter how trivial it may be. Since we cover the lines of suture as noted these complications have almost entirely disappeared.

SUMMARY AND CONCLUSIONS

Nonmalignant diseases of the uterus may be managed by conservative operations thereby preserving the menstrual function of the uterus.

By this means, although the woman is necessarily sterilized, her menstrual function and in consequence the nervous balance is preserved. Then why not do it?

Vincent Vermooten, Johannesburg, South Africa (*Journal A. M. A.*, Sept. 11, 1937), states that the South African Negro (Bantu) does not form renal calculi, as illustrated by examination of the hospital admission records of 1,091,000 Negro patients. Members of the white population of South Africa, as illustrated by the examination of hospital records of 126,000 admissions, form renal calculi in the ratio of one in 460 admissions.

TREATMENT OF DIABETES

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In the modern treatment of diabetes two important problems are involved. The first is the immediate relief of distressing symptoms. These might include thirst, polyuria, visual disturbances, circulatory disturbances, loss of weight, skin infections, acidosis, coma and last but by no means least, the psychic element caused by a disease new to the patient might be of grave importance.

The second problem is the future welfare of the patient, and our judgment in routine management and education will, in a great measure, determine his future efficiency. If, for example, we relieve severe acidosis or even coma and then so arrange his future diet and management as to invite arteriosclerosis, obesity or severe undernutrition, we have not accomplished much. Our criteria for treatment must include measures which approach normal values of diet, nutrition and general metabolism. All our ingenuity must be mobilized to meet these measures. We must realize that problems of treatment in diabetes as well as in other diseases are not static; they are in perpetual evolution and must be based on our interpretation of chemical and physiological facts as we find them today.

Recently, within a period of a month, five patients presented themselves for diagnosis and treatment. The diagnostic procedures carried out in these patients, the reasoning used in the management of their immediate symptoms and directions for their future treatment will serve to illustrate my idea of modern treatment of diabetes.

REPORT OF CASES

Case 1. A girl 6 years of age, who had been in excellent health until three weeks previous, began to lose weight, had frequent urination and terrible thirst. A chiropractor made a diagnosis of worms and put her on various procedures none of which seemed to help. On the day on which I saw her, she had been sent home from school because she was drowsy and listless and the teacher could not get her attention. She arrived at the office about noon. She was very sleepy and would hardly answer questions. Her physical examination was negative. There was a distinct acetone odor to her breath and her respirations were increased. Her blood sugar was 340 mg. per 100 cc. Her CO_2 combining power of blood plasma was 22 volumes per cent. Her urine contained 6 per cent sugar and was strongly positive for diacetic acid and acetone. She was immediately sent to the hospital and was given 30 units of regular insulin, 500 cc. normal salt solution with 40 cc. molar sodium lactate intravenously. She was given 20 units of insulin later in the evening. Her dietary order was carbohydrates 85 gm. and 1000 calories.

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The next morning her fasting blood sugar was 86 mg. per 100 cc. and CO_2 combining power of blood plasma was 48 volume per cent. Urine was negative for sugar, diacetic acid and acetone. She was given 10 units insulin, and 10 units were advised for noon; but at 11 o'clock she had an insulin reaction with blood sugar of 38 mg. Insulin was discontinued and diet was gradually stepped up to a general hospital tray. She was dismissed within ten days. Our idea was that we probably had made a mistake in diagnosis. We saw her six weeks later; her symptoms were similar although in less degree than precipitated her first consultation. This time however her blood sugar was 180 mg. and urine contained 2 per cent sugar but no diacetic acid or acetone. She was given 10 units of insulin and asked to return without breakfast the following morning. She was given a one hour two dose glucose tolerance test. The next morning she was given an insulin sensitivity test which showed that she was definitely sensitive to insulin. She was established on a diet of carbohydrates 150 gm., protein 75 gm., fat 80 gm., 1620 calories. She was given 10 units of protamine insulin in the morning and 15 gm. of NaCl daily. On this regimen she has maintained normal blood sugar and she has not lost weight; also she is progressing nicely in school.

Case 2. A 16 year old boy, 6 feet 1 inch tall, weighing 195 pounds, good habits and previous good health, had been diagnosed diabetic two weeks before and had been in a hospital at absolute bed rest on a diet of carbohydrate 65, protein 70, fat 150. He was given 65 units of regular insulin daily and continued to run heavy traces of sugar in the urine and the fasting morning blood sugar was seldom under 200 mg. The boy and his parents had reconciled themselves to an invalid existence. They were very nervous, apprehensive and unhappy. The boy was dejected and depressed. He could not understand why insulin would not make him normal. The blood sugar was 285 mg. and urine contained 3 per cent sugar and a trace of diacetic acid. The next morning his one hour two dose glucose tolerance test showed a definite diabetic curve and he was proved to be very sensitive to insulin although his previous history and hospital record suggested that he might be insulin insensitive. I got the parents and the boy together and explained our findings and told them there was no good reason why the boy could not plan for the future the same as nondiabetic boys do; that he could continue his school and most of his athletic activities and that diabetics have a good expectancy as to life. I was extremely careful to explain to them the importance of worry and nervousness on blood sugar. He was established on carbohydrate 125, protein 85, fat 100, 20 units protamine insulin in the morning and 15 units in the evening. The boy was given the freedom of the hospital corridors. He could take walks, was allowed to go to picture shows and was given instruction in diabetic arithmetic. His mother spent much of her time in the diet kitchen. We were able by the first of the week to increase the boy's diet to carbohydrate 165, protein 85, fat 110 and to reduce his insulin to 15 units in the morning and 10 units at night. Since leaving the hospital he has maintained his weight, is getting along well in school and is full of hope for the future. At present he is on 20 units of protamine insulin in the morning, can calculate his diet, and both he and his parents are happy.

Case 3. A boy, 23 years of age, 5 feet 9 inches in height, weighing 132 pounds, was seen at home. He had been diagnosed as diabetic six weeks previously at which time his weight was 156 pounds. He was

told that he could be cured by insulin in tablet form. Twenty-four hours previous to my visit he developed excessive thirst and nausea. Later in the day he complained of abdominal pain, abdominal distention, fever and chills. His breathing became labored about four hours prior to my visit and for two hours the family had been unable to arouse him. The diagnosis was acute appendicitis with probable rupture and peritonitis. He was sent immediately to the hospital. His blood pressure was 80 (?), blood sugar 490 mg. per 100 cc., CO_2 combining power 18 volumes per cent. We were able to get 75 cc. concentrated urine by catheterization which contained 2 per cent sugar, diacetic acid and acetone, also numerous red blood cells, finely and coarsely granular casts and a heavy cloud of albumen.

His N. P. N. was 63 mg. per 100 cc. Leukocyte count was 23,000 with 88 per cent neutrophils, temperature 103, respiration 33 per minute. He was given 2000 cc. normal salt with 90 cc. molar sodium lactate, 50 units of regular insulin. The insulin was given in 20 unit doses every hour. He regained consciousness in three hours. The nausea and vomiting had subsided and his abdominal distention had responded beautifully to warm saline enemas and hot moist packs applied to the abdomen. He rapidly improved and left the hospital on a diet of carbohydrate 150, protein 75, fat 90, with 20 units of protamine insulin in the morning and 10 units in the evening, and 15 gr. NaCl twice daily. It was considered unnecessary and perhaps unwise to do a glucose tolerance test, but he was proved to be sensitive to insulin by the sensitivity test. The boy is back at work as a deliveryman and is able to handle his job in a normal manner.

Case 4. A woman, 60 years of age, 5 feet 6 inches in height, weighing 165 pounds, had complained of dizziness, headache, blurred vision, numbness of the extremities and a perforating ulcer of the left ankle. Her doctor told me he had diagnosed diabetes two months before but that she had sugar in the urine only at times. Her blood pressure had been 180 systolic for five years to his knowledge. She was immediately hospitalized. Her fasting blood sugar was 260, urine negative for sugar but contained much albumen and excessive hyaline casts. The remainder of the blood chemistry was normal including blood cholesterol and cholesterol esters. Insulin sensitivity test showed her to be rather insensitive to insulin. She had a poor vascular response to histamine in both lower extremities. Retinal vessels showed marked sclerosis but no exudate or hemorrhages. Her electrocardiogram showed partial bundle branch block. She was put on a diet of carbohydrate 100, protein 75, fat 80, and was able to maintain a fairly normal blood sugar, between 120 and 150 on 25 units protamine insulin morning and 15 units at night. She never had glycosuria. If we attempted to increase her diet her blood sugar would increase regardless of her insulin dosage, and if we increased her insulin dosage she developed reactions. She was given deep roentgen ray therapy to the lumbar ganglia and was put on aminophyllin and fairly large doses of sodium iodide. Positive and negative pressure was applied to the foot and the ulcer healed in four weeks. She is still dizzy and rather weak. On several occasions she developed heart cramps, when we attempted to increase the insulin to render her blood sugar absolutely normal. She has had perfect heart comfort, however, since her insulin dosage has been established at 25 units in the morning and 15 units at night with a diet of carbohydrate 100, protein 75, fat 85, although as noted above her blood sugar varies

between 120 and 150 mg. per 100 cc. These cases almost always have heart cramps on regular insulin due to abrupt action.

Case 5. A woman, 36 years of age, 5 feet 4 inches in height, weighing 112 pounds, was always in good health and had a baby 6 months old. Her weight at the time of delivery was 138 pounds. Sugar had been found in urine. She was distressed about this fact, had read all the diabetic books she could find and eventually took the management of her care out of her doctor's hands. She came to me because she could not diet herself sufficiently to make the sugar disappear from her urine. She was weak and nervous and very apprehensive although she admitted she had never had polyuria or thirst; but she elaborated at great length about her loss of weight. Her fasting blood sugar was 96 mg. per 100 cc. Her curve following one hour, two dose glucose tolerance test indicated normal ability to utilize carbohydrate although the sugar in her urine was proved to be glucose. The amount of sugar in the urine was not influenced to any extent by meals. We had extreme difficulty in convincing her that she did not have diabetes, and finally that the sugar in her urine was not lactose. But by means of painstaking explanation she finally decided to go on a normal diet and forget about diabetes. She has gained weight and strength but her urine still contains small amounts of sugar. Her blood sugar is persistently normal.

COMMENT

Study of these cases presents several problems. In the first place, it is not always a simple matter to diagnose diabetes. Errors fall into two groups; one, diabetes is falsely diagnosed and the other, failure to make the diagnosis of diabetes. The former is probably the error most commonly committed. Without rather elaborate chemical facilities it is difficult, and frequently impossible, to determine exactly the nature of the reducing substance found in the urine. Exton has written on the subject of identification of various reducing substances and has offered an excellent method for their identification. Even assured that the reducing substance is glucose, one is not sure that the patient has true diabetes. There is always the possibility of renal glycosuria or alimentary glycosuria. By using the one hour, two dose glucose tolerance test, one can always differentiate true diabetes from other causes of glycosuria. The test is simple and I think more scientific than the old glucose tolerance test. The test is based on Allen's paradoxical law, "Whereas, in normal persons the limit of carbohydrate utilization is apparent and not real, in diabetes the limit is real." The more carbohydrates given a normal individual the more he will metabolize up to the point of death, while each diabetic has a limit of carbohydrate metabolism above which he fails to utilize sugar at all as indicated by glycosuria, hyperglycemia, acidosis and even coma. It has been shown that the normal response to the injection of glucose in normal individuals is an increased production

of insulin. Therefore when subsequent doses of glucose are given more insulin is available for its utilization. Thus far the first part of Allen's paradoxical law is explained. In the diabetic individual the response is greatly depressed, depending on the severity of the case, and there is no appreciable amount of insulin stimulated after the first dose of glucose to take care of the second dose.

The one hour, two dose tolerance test is easy to perform and its results are more specific than the older test. The following steps are taken:

1. Test is made in the morning with the patient fasting.
2. 100 gm. glucose and the juice of two lemons are dissolved in 600 cc. of water.
3. Collect blood and urine. (Sample A.)
4. Give one half of the glucose solution.
5. In thirty minutes collect blood and urine (Sample B) and give the remainder of the glucose solution.
6. In thirty minutes collect blood and urine (Sample C).

The plotted curves will easily differentiate diabetics from normal individuals. In diabetic curves the line extends upward, whereas in normal curves the second arm of the curve usually is depressed. The simplicity of this test enables the practicing physician to use it and, in the event of his inability to determine the nature of the reducing substance in the urine of questionable diabetics, there are always hospital laboratories near at hand where these determinations can be made. Mistakes in diagnosis of diabetes as in case 3 are usually due to carelessness or failure to remember that in severe acidosis and coma dehydration is marked, the patient usually vomits and purges, the abdomen is distended and fever and leukocytosis is the rule.

In treatment one has to consider, as noted above, two important problems: First, the relief of immediate symptoms; second, measures must be taken to enable the patient: (1) To carry on his occupation; (2) to maintain weight and nutrition, and (3) to maintain normal blood sugar, sugar free urine and normal blood cholesterol. And in doing these things the patient must be protected from the consequences of diabetes; namely, the ever present tendency for diabetics to develop vascular disease.

If the patient has severe acidosis when we first see him our problem is definite. We attempt to relieve the dehydration by means of intravenous salt solution. This in turn relieves the circulatory collapse and as the blood pressure rises the breathing often becomes more normal. We attempt to relieve the acidosis by the use of molar sodium lactate solution of from

40 to 80 cc. in 1:2000 cc. normal salt solution. The reaction is never so abrupt as that caused by the use of sodium bicarbonate and the results are quite striking. The CO_2 combining power almost invariably improves immediately and the hyperglycemia is controlled by means of regular insulin in large doses, usually 50 units for the initial dose and subsequent dosage depending on the response of the blood sugar. In severe cases, I do not hesitate to use glucose in the salt solution. The procedure seems less dangerous when we consider that the glucose in the circulating blood of a patient in which the blood sugar is 500 mg. per 100 cc. seldom exceeds from 25 to 30 gm. I sometimes think the addition of 50 gm. glucose supplies fuel with which to burn the existing acid bodies.

Whatever method is used for the relief of acidosis, the important problem of every day maintenance soon becomes apparent and it is this problem which finally tests our real skill as diabetic experts.

Ever since the time of John Hunter there have been conflicting views concerning ideal dietary principles in diabetes. One group of investigators insists that the amount of carbohydrates in the diet should be as high as possible, the idea being that if the high carbohydrates can be utilized the incidence of arteriosclerosis will in turn be diminished.

On the other hand, equally competent observers feel that low carbohydrate, high fat diets will maintain strength and nutrition; and that arteriosclerosis is not more prevalent in cases so treated than in patients given high carbohydrate, low fat diets.

Most observers agree that arteriosclerosis occurs most frequently and more severely in diabetics than in normal individuals. There is also a general feeling that cholesterol metabolism has a bearing on the arteriosclerosis of diabetics.

I feel that the finding of cholesterol crystals in the intima of blood vessels in amputated feet are far too frequent to be classified as co-incidental. I also feel that the presence of these crystals must represent some abnormality of fat utilization or deposition. Even though Newburg insists that blood cholesterol is no higher in diabetics fed high fat diets than in those fed diets low in fat, one might as well conclude that chlorides play no role in edema because the blood chlorides are normal.

Hinsworth has made a valuable contribution to diabetic diets. While one cannot agree absolutely with his reasoning, nevertheless, his principle can be utilized in judging which case will and which case will not tolerate high carbohydrate diets. He assumes the presence of an unknown substance in the body which ren-

ders the utilization of insulin possible. He calls this a sensitizing substance.

The substance is present in normal individuals and to a certain extent in most diabetic individuals. Its presence is necessary to render the body sensitive to insulin. If totally absent, insulin would be inert. If present in large amounts, the patient will respond well to insulin, can take large amounts of carbohydrates with little increase in insulin dosage; if absent the patient responds poorly to insulin and will develop hyperglycemia and glycosuria if the normal limit of tolerance is exceeded, even though large doses of insulin are given. In other words, the insulin sensitive patients develop diabetes because they do not produce sufficient insulin to meet metabolic requirements; whereas, the insulin insensitive patients develop diabetes not only because of insufficient insulin but because of inability to utilize either their own insulin or the insulin supplied hypodermically.

Hinsworth's insulin sensitivity test is conducted as follows: Patient reports in the morning fasting. Blood for sugar test is taken and the patient given 50 gm. glucose in lemon juice and 5 units regular insulin per square meter of body surface. Samples of blood are taken at five minute intervals for five times, ten minute intervals for two times and at fifteen minute intervals for two times. The blood specimens are taken from the finger or ear for microscopic analysis. The curve is then plotted. If there is a fifteen minute depression in the curve insulin sensitivity is proved, and if no such depression is noted in the curve insulin insensitivity is diagnosed.

Experience has taught me not to use the test until I have the patient under good control. Its reliability is in question if, for example, the fasting blood sugar is over 150 mg. per 100 cc. Therefore I always make sure that the patient is under control before relying too much on the results of the test. Under strict conditions I feel that it is possible to state in almost every case whether or not the patient will tolerate high carbohydrate diets. I am of the opinion that high carbohydrate diets, those ranging in the region of from 150 to 200 gm. per day, if properly controlled by insulin will do much to prevent future cholesterol arteriosclerosis.

The matter of sodium chloride in the treatment of diabetes is interesting. Glass and Berless, later MacQuarrie, and finally, Sandstead, have shown that the insulin requirement in given diabetics can be reduced through the use of sodium chloride. Sandstead used from 10 to 90 gm. daily and noted no ill effects. He noted no rise in blood pressure in any case. His next important observation was in connection with

neurocirculatory disturbances, so-called diabetic neuritic cramps in the legs and feet. All these are relieved to a great extent by the use of the salt. He even noted improvement in the histamine test following the use of sodium chloride. I have had insufficient experience with salt to express a definite opinion although the few cases in which I have used it have responded favorably.

The use of protamine insulin has been freely discussed in the literature and all are no doubt familiar with the subject. However, the technique of its use and its behavior in clinical cases is so different from regular insulin that a short resume of the subject seems advisable:

Protamine insulin as sold at the present time contains 2 gm. zinc per 100 units. This zinc acts as a preservative and also prolongs the action of the insulin. According to Habinwitch the addition of small amounts of zinc can be used with impunity. Zinc is present in the pancreas and has always been present in small amounts in regular insulin. Purification methods in manufacturing have removed the zinc from regular insulin, and this explains why regular insulin acts more rapidly than it did a few years ago. The duration of action of protamine insulin is much longer than hitherto thought. It depends upon several factors, the height of blood sugar when given and the dose of insulin administered. If adequate dosage is given the action is scarcely perceptible. The action is really not as striking as that produced by regular insulin. However, given in adequate dosage, the action varies in different individuals from twelve to twenty-four hours. There have been instances quoted in which the action was thought to continue through forty-eight hours. However this can scarcely be accredited because many factors other than insulin may have accounted for the supposed action. At first protamine insulin was given at night and regular insulin in the morning. Later as reports on the unusually prolonged action of protamine insulin became available, most observers began giving the large dose of protamine insulin in the morning and if necessary smaller doses at night. The reasons are simple. Reactions were noted occasionally toward morning with the first procedure and these can be eliminated by giving a large dose of protamine insulin in the morning and depending on the buffer action of breakfast, lunch and dinner, to prevent reactions. Another reason is that if one dose is adequate the morning blood sugar will become constant and furnish an excellent guide to treatment. If more than one dose is required it can be given at night. Larger doses therefore can be given in the morning than at night. A very important point to remember

in starting a new patient on protamine insulin is that its slow action frequently marks its efficiency, and if constant dosage is administered in a few days the blood sugar will be abnormally low. This phenomenon is due to the slow action. It is usually well to start on a given dose of protamine insulin and reduce the dosage by one fifth the third day; frequently another reduction will be necessary. In general we find that it requires fewer units of protamine insulin to control a given case than regular insulin.

I have not used protamine insulin in severe acidosis or coma as yet. Regular insulin is satisfactory and more should be learned about the action of protamine before its use is justified in such emergencies.

Reactions still occur though not as frequently following protamine as regular insulin and can reach dangerous proportions. The character of reactions differs from those occurring in patients taking regular insulin. Those symptoms which have been attributed to the protective mobilization of epinephrine are less pronounced. The blood sugar falls so slowly that the adrenal glands are not abruptly stimulated, thus sweating, bounding pulse and tremor may be absent. The symptoms of cerebral origin such as drowsiness, headache, nausea, fatigue and double vision, become the warning signs of impending reactions. All patients should be instructed relative to these points.

Protamine insulin is by no means the answer to all diabetic problems. The severe diabetic, especially those not very sensitive to insulin in which reactions occurred with frequency, still remains our hardest problem. I feel that they can be handled with more safety on protamine than with regular insulin; they will feel better in general but they still present difficult treatment problems. I feel that to the diabetic with hypertension, arteriosclerosis and evidence of coronary disease, especially if anginoid attacks are frequent, protamine insulin is a godsend. No doubt the rapid action of regular insulin produces poor nutrition to heart muscle by suddenly reducing blood sugar; also its effect on mobilization of adrenalin is dangerous. These cases can have the advantage of protamine insulin with relative safety.

924 Professional Building.

Arthur W. Allen, Boston (*Journal A. M. A.*, Sept. 18, 1937), discusses the various factors associated with operative procedures on the large intestine in an effort to offer, if possible, some suggestions that may help in reducing the mortality. Carcinoma of the right colon is a favorable lesion for cure. It is technically easily removed; still, the mortality is higher than for resections for cancer elsewhere in the large intestine.

ACUTE DIVERTICULITIS OF THE SIGMOID

WALTER C. G. KIRCHNER, M.D.

ST. LOUIS

In discussing the various manifestations of diverticulitis, I wish to emphasize the importance of this disorder and especially to show its relationship to the surgery of acute abdominal conditions. While in general but little special attention has been paid to the recognition of diverticulitis, nevertheless, in certain of the larger clinics and medical centers quite a considerable number of cases have furnished material for reports and observations so that it has been possible to develop a well defined symptomatology of this condition.

As a part of a progressive pathologic process, acute inflammation of a diverticulum associated with the bowel becomes of special interest and warrants special consideration because of the immediate or remote danger of peritonitis, local or generalized, and the great danger of bowel perforation.

In order better to understand and appreciate the relationship of the acute forms of diverticulitis to the general pathologic process, it would be well to consider briefly a review of the information and findings that have been gathered by various observers and students of the subject.

The pathologic entity of diverticulitis has not been sufficiently appreciated. However, as early as 1858 attention was called to this condition in an interesting report by Sidney Jones, in which instance a fistulous tract had been established between the sigmoid and the bladder. While Virchow had described conditions which were probably the result of pathologic processes, which we now believe were associated with diverticulitis, it was not until 1898 when Graser reported his observations that we had a description of the true nature of diverticulosis and of diverticulitis. Subsequent instructive contributions were made by Fisher in 1901, by Beer in 1904 and in 1907 there were two papers before the American Surgical Society, namely, one by Mayo, Wilson and Griffin reporting five cases in which a portion of the sigmoid was excised for tumor due to obstructive diverticulitis, the other by Brewer on "Etiology of Certain Cases of Left-sided Intra-abdominal Suppuration." In later years there have been quite a number of important contributions on the various manifestations of diverticulitis and they have enabled us to form a clearer conception of the subject.

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Careful studies based on clinical observations, surgical operations and on roentgenologic, post-mortem and microscopic examination have demonstrated the occurrence of diverticula in various portions of the gastro-intestinal tract and that, while prevalent in the colon, they occur most frequently in the sigmoid. The diverticula are in the nature of hernial protrusions of the mucosa of the bowel through the attenuated muscular layer. These protrusions vary in size from that of a millet seed to that of an olive and may be globular or conical in shape. They may be constricted or open at the base and frequently contain fecal material which, in the nature of a fecolith, becomes inspissated and hard.

Etiologically, diverticula are of two types, congenital and acquired. Diverticula that occur in the large bowel are of the acquired type. In a single case they may vary in number from one to four hundred, the average being between fifteen and fifty.

The site and manner of formation of the diverticulum is determined by the vascular structure of the bowel. The adherents of the vascular theory believe that where the blood vessels enter the wall of the bowel there is produced a minute opening and weakness of the muscular coat through which the mucosal layer protrudes in hernia-like fashion.

An increase in fat and weakening of the connective tissue and muscular layer, in conjunction with chronic constipation, gas formation and internal intestinal pressure, are considered contributing factors in the formation of diverticulosis. In the small intestine diverticula occur at the mesenteric border, while in the large bowel they occur between the mesentery and the lateral longitudinal band. Not infrequently they extend into the appendices epiploicae, in which case it would be difficult to recognize them.

While diverticulosis has been reported in a child of 7, it occurs most frequently in advanced years or beyond the age of 35. The most frequent occurrence is between the ages of 40 and 60. It occurs twice as often in males as in females.

Roentgenologic examination of the alimentary canal has been the means of making a diagnosis of diverticulosis of the intestine in cases in which there often were no symptoms referable to the intestinal tract. In this manner the size and shape of the diverticulum may be outlined. Spriggs, in a series of 1909 consecutive radiological examinations, found diverticulosis in 8.3 per cent and of this number 12 per cent showed evidence of diverticulitis. These findings are not uncommon and it is quite evident that diverticulitis is a secondary or more remote

complication of diverticulosis. When a roentgenologic examination is made as an aid in the diagnosis of diverticulitis, a special technic may be required to visualize the condition.

The pathologic picture of diverticulitis represents a series of changes from a simple inflammatory reaction affecting the mucosal lining to a complex and far reaching inflammatory or degenerative process involving the structures of the bowel, the peritoneum and various organs and tissues contiguous to the diseased area and focus of inflammation. As the diverticula are usually filled with fecal matter, under certain conditions concretions may form which, producing irritation and inflammation, convert a diverticulosis into a form of diverticulitis. The diverticulitis may remain localized but, if the inflammation spreads, a peridiverticulitis results which may involve the peritoneum. Local gangrene and perforation may result.

The process, by gradual progression, may cause local abscess formation and fistula between neighboring organs. In some instances the inflammation of a diverticulum spreads involving principally the wall of the intestine as a chronic process and, by infiltration of the wall, causing tumefaction and constriction of the lumen. Bowel obstruction of an acute or chronic nature may then manifest itself.

In order to emphasize more concretely certain points in the symptomatology, diagnosis and treatment of acute diverticulitis, I wish briefly to review the following case report.

CASE REPORT

Mr. A. C., a white male aged 46, was seen in consultation relative to the necessity of an operation because of a more or less severe and sudden pain in the abdomen. The patient was sent to the hospital where an operation was performed at once.

Chief Complaint.—The patient's chief complaint was pain in the abdomen. He was nauseated and had vomited, had a chill and some fever and was hiccoughing. There was also a slight irritability of the bladder. The abdominal distress caused him to remain in bed.

Previous History.—The patient previously had never had an attack similar to the present trouble. He was constipated at times but in other respects his health had always been good.

Physical Examination.—The patient was a plethoric white male of middle age and was lying quietly in bed. The blood pressure was systolic 134, diastolic 90, pulse rate 90, temperature 100° F. The urinalysis showed the presence of albumin but otherwise was normal. The leukocyte count was 11,300, erythrocytes numbered 4,680,000 and hemoglobin was 84 per cent. The ears, nose and throat were normal. The chest was well developed and the respiration was normal. The lungs were normal. The heart action was regular; the sounds were distant but there were no cardiac murmurs. The abdominal wall was tense and there was tenderness over the entire abdomen. There was acute pain on localized pressure in the left lower quadrant at a site corresponding to McBurney's point. There was definite muscle guard on the left side. Rectal digital examination disclosed tenderness to the

left of the bladder but no tenderness in the right pelvic fossa.

Diagnosis.—A diagnosis of acute diverticulitis was made and the patient was prepared for immediate operation.

Operation.—Incision was made to the right of the median line. The peritoneum was not markedly inflamed. The pelvis contained a moderate amount of turbid fluid. The cecum was located high and was smaller than usual. The appendix extended to the left, bridged the sacrum and the tip was firmly adherent to a mass located on the floor of the pelvis and at the left border of the sacrum. After freeing the appendix an appendectomy was performed in the customary manner. The appendix was not inflamed. At about the middle portion of the sigmoid there was a somewhat firm mass about the size of a lemon which, on account of adhesions, was difficult to deliver into the operative field. Upon careful dissection it was found there was a tit-like projection of the sigmoid encased in fatty tissue and associated with the mass of inflamed tissue. The tubular structure led into the wall of the bowel where there was some plastic exudate which, when liberated, disclosed a fecal-like concretion 1/4 by 3/16 inches which was removed. The diverticulum, resembling a sharpened pencil in shape, was about one inch in length, the wall was thin and the base opened into the bowel which at this location was partly necrotic. The diverticulum was removed and a purse-string suture was used to close the opening in the bowel. The area was reinforced by suturing over it fatty tabs in an effort to prevent the formation of a fecal fistula. The sigmoid was replaced, rubber drains were placed in position and the wound closed in layers.

Postoperative.—The postoperative course was essentially normal. The pus drainage from the wound was moderate and had a fecal odor. The wound healed without fistula formation. The patient made a complete recovery.

In the broad consideration of diverticulitis it is evident that the symptoms depend upon the stage of the pathologic process. The symptoms of acute diverticulitis are quite similar to those of acute appendicitis. When the sigmoid is involved there is pain in the left lower quadrant. The affection may be acute, subacute or chronic in nature. There may be indigestion, flatulence, nausea or vomiting, pain in the region of the lesion, rigidity and spasm of the abdominal muscles, moderate elevation of temperature and leukocytosis. Diarrhea and the passage of mucus or pus may occur and urinary disturbance may also be present. The process may lead to perforation or to abscess formation. While resolution may take place in a few days, recurrences are common. There is then a progression of the inflammation with the symptoms of abscess or fistula involvement.

The diagnosis may be established by roentgen ray examination and, in the colon, the involvement may be visualized. A special roentgen technic is often required in order to demonstrate the diverticula. Diverticulitis may also at times be visualized by sigmoidoscopic examination. The diagnostic signs of acute diverticulitis of the sigmoid are similar to those of

appendicitis. There is nausea, vomiting, fever, leukocytosis, localized pain and rigidity of the abdominal muscles. Upon rectal digital examination localized tenderness may be elicited or the presence of a mass may be determined.

The complications depend upon the stage and progress of the inflammatory process. They are peritonitis, local abscess formation, local gangrene of the bowel, perforation into the general peritoneal cavity, perforation into neighboring organs (bladder, intestine, female generative organs) through fistula formation, intestinal obstruction due to adhesions or as a result of chronic induration of bowel, and carcinoma.

The treatment of diverticulitis likewise depends upon the stage of the disease. In the early stage and when the disease is confined to the inner portion of the intestine, dietetic and medical treatment are indicated.

In the stage of acute peritoneal irritation and perforation, active and prompt surgical measures should be instituted. Proper and early operation may obviate the distressing complications that are the result of a progressive pathologic process. Bowel obstruction may require a colostomy or a resection of the affected portion of bowel. Abscess formation may require drainage, either through the abdominal route or through the rectum. Fistulae, when postoperative, sometimes may be cured by the use of irradiated ointment or the employment of ultraviolet ray adaptors. It should be remembered that the treatment of the complications is often difficult and will tax the skill of the surgeon to the utmost.

CONCLUSIONS

1. Diverticulosis, occurring more frequently in the middle and later periods of life, is more prevalent than has heretofore been realized.

2. Diverticulosis, while in itself a harmless and often a symptomless condition, has the potentialities of producing an acute or a chronic symptomatology associated with the intestine and with the pelvic colon more especially, and the seriousness of the condition depends upon the nature of the existing pathology and the resulting complications.

3. Chronic diverticulitis of the discrete type, under proper dietetic and medical treatment, may show a marked and lasting improvement.

4. Chronic diverticulitis, which results in a chronic inflammation and induration of the bowel wall, leads to constriction of the lumen and the resulting symptoms are those of bowel obstruction. The inflamed and indurated portion of bowel, due to diverticulitis, often forms a tumor-like mass which may be difficult to differentiate from cancer of the bowel.

5. Acute and localized diverticulitis simulates acute appendicitis in its symptoms and because of the danger of perforation and the resulting peritonitis, prompt surgical intervention is indicated.

6. Subacute and localized chronic diverticulitis is prone to lead to gangrene of the affected diverticulum and, as a result, peritonitis, perforation of bowel and abscess formation may ensue and the occurrence of fistulae between bowel and contiguous organs and structures is not uncommon.

7. In the differential diagnosis of acute abdominal conditions, due consideration should be given to diverticulosis as an entity and the associated and varied pathologic changes that manifest themselves as special forms of diverticulitis should be borne in mind.

Metropolitan Building.

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Vitamin A deficiency is common in adults and varies from a photometrically detectable phase to the complete clinical syndrome. In a group of 162 medical students studied by Harold Jeghers, Boston (*Journal A. M. A.*, Sept. 4, 1937), 35 per cent had low photometer readings and 12 per cent had clinical manifestations of the deficiency. The chief manifestations, in the order of their frequency, were night blindness, photophobia, dry skin, dry conjunctivae, blepharitis and follicular hyperkeratosis. The factors producing the deficiency were analyzed and showed that the skipping of meals and poor choice of foods were chiefly responsible. After dietary analyses it was concluded that 4,000 international units of vitamin A daily represent the minimal requirement for a healthy adult.

ADDICTION TO BARBITURIC ACID DERIVATIVES

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Barbital (diethyl barbituric acid or diethyl-malonyl urea) was first introduced clinically under the name of veronal in 1903 by Emil Fischer and von Mering.¹ It is closely related chemically to urea and some other hypnotics. From the original, numerous derivatives have been synthesized by additions or substitutions. This synthetization has given us many variations of the original drug which are different in dosage, speed of action, therapeutic usage and toxicity.

Barbital and its derivatives have been used widely during the last thirty years by the medical profession as hypnotics and sedatives to control epilepsy, as a substitute for morphine and other opiates, and as general anesthetics in both major and minor surgery.

These drugs have been prescribed freely by physicians, nonmedical practitioners and druggists. Laymen have acquired the habit of self-prescription. The drugs are put up in packages and units distinctive in shape, size and color, and it is easy for the layman to go to his druggist, describe the tablet or capsule, and receive it as he would tooth paste and shaving cream.

Physicians have been told by the detail men of great drug houses that these products are harmless, non-habit-forming, produce normal sleep and no toxic reaction. Too many physicians have believed this glowing description, and have passed it on to their patients so that the great majority of lay people at the present time harbor the above mentioned misconceptions and self-prescribe these drugs freely without any thought of possible consequences.

The barbiturates are unique in that the secondary and the associated clinical actions of these drugs have not been properly investigated through clinical study. Their pharmacologic action has been carefully worked out and the clinical application has been based entirely upon these pharmacological studies. The associated ill effects from prolonged or sporadic therapeutic use of these drugs have not been touched upon sufficiently. There has been little experimental work done to determine if prolonged usage or heavy dosage of these drugs is harmful to the structure of the nervous system and the body as a whole.

It is the purpose of this discussion to point out some of the ill effects which we have seen in clinical practice so that physicians may better

understand the underlying dangers of these drugs. We wish to show that the little experimental work which has been done on heavy dosage shows definite changes in the brain as the result of these doses.

When any sedative, hypnotic or analgesic, is up for discussion, the first and most important question is: "Is it addictive?" Medical terminology does not give us a clear-cut definition of "addiction" and it is permissible for anyone discussing this subject to define the term and its usage within rather wide limits.

Addiction, as we use the term, is the state of being addicted to or needing any single drug or type of drug to produce a physiological and psychological subjective feeling of well-being. This definition includes more than that pharmacologic state of addiction in which, upon the withdrawal of a drug which has been used for some time, physiologic changes result from this withdrawal. It also includes those states in which, upon withdrawal, we find definite emotional instability; and those states in which emotional instability is aggravated and pronounced, not only upon withdrawal, but during each free period in which the drug is not taken.

It includes all of those states in which greater doses of the drug are required with the passage of time in order to produce the original pharmacologic action, that is, tolerance. Tolerance is also used to define that state of pharmacologic and physiologic reaction of certain drugs after prolonged use which increases the minimum lethal dose for that individual. It is debatable and opinion is divided as to whether the barbiturates will develop this type of tolerance. However, we shall show that tolerance to the pharmacologic action of the drug is developed so that, after it has been taken regularly or irregularly over a period of time, heavy doses will not produce the expected pharmacologic action, that is, hypnosis and sleep.

Therefore, using the broader interpretation of addiction, the barbiturates definitely fall into the group of addiction-producing drugs. This statement is well illustrated by the following cases.

REPORT OF CASES

Case 1. A young married woman, aged 28, was brought to us with the chief complaint of emotional and nervous instability and the repeated use of barbital.

About six years before she was placed under our care she had had considerable serious illness including two laparotomies, a long siege of pelvic peritonitis and, at the same time, she was under considerable emotional stress and strain due to family troubles. At that time it was imperative that some hypnotic and sedative be used to control the nervous system. Morphine was not used extensively because her physician recognized the potential danger of addiction.

Barbital, in its various forms, was used to control insomnia, emotional instability and nervousness.

Following her recovery she began to have recurrent attacks of instability at which time barbital was prescribed. She soon began to take it without any medical supervision, and about two years after her physical recovery her husband became quite alarmed at the quantity and frequency of the self-prescribed barbital doses. From 5 to 15 grains taken at night would not produce deep or restful sleep and she soon got into the habit of taking a single dose of from 30 to 50 grains every few days or every week or two, which would produce coma for from twenty-four to thirty-six hours.

Upon her recovery from the barbital stupor she would have a day or two of emotional instability and depression, then for a few days she apparently would be her normal self. Soon she would develop insomnia, depression and emotional instability again, which in a day or two would lead to another barbital experience.

Her husband was fully aware of the danger and she would make sporadic efforts to cooperate, but with the passage of days her nervousness and instability would once more lead her to take large doses to make her sleep.

Before she became sick she had been an expert front office clerk. As soon as she recovered from the effects of the acute barbital poisoning, which she had upon admission to the hospital, she was placed in a similar position on our staff as part of our rehabilitation program. Although she was under constant supervision, her work had deteriorated to the point where she was absolutely unreliable. She could no longer file correctly, was unable to learn switchboard technic and her records were full of mistakes.

During the several months that we worked with her case there were a number of barbital experiences. We finally concluded that all rehabilitation methods were futile. It was apparent that repeated massive doses of barbital had produced so much brain destruction that she could never be stabilized.

Case 2. A young woman, aged 29, was admitted to the hospital in a state of nervousness and barbital toxemia. About a year previously she had had a family experience which practically destroyed her emotional stability. However, she stabilized herself and, during the year preceding her admission, had seemed to be fairly well adjusted.

About six months before admission she developed a pelvic peritonitis which demanded a complete salpingectomy, the complete removal of one ovary and a partial removal of the other. Following this, for the week preceding and the week following each menstrual period, she was emotionally unstable, hypersensitive and suffered from extreme nervousness and insomnia.

Her physicians realized the danger of morphine and had given her a chloral and bromide combination to control nervousness. She fell into the habit of self-administration of pentobarbital in addition to the above prescription.

At the time of admission she was taking daily doses of from 45 to 60 grains of bromide, 25 to 30 grains of chloral, and 3 to 4½ grains of pentobarbital during her disturbed periods.

After careful study of the case we did not believe that prolonged hospitalization was the answer to her problem. There were some financial considerations which influenced this decision. The family did not care to call upon the state hospital for treatment for her and it was thought that rest at home might an-

swer the problem, with our staff still retaining supervision.

An attempt was made to withdraw all sedative type drugs before she left the hospital. This was successful, but when the next disturbed period arrived she was unable to tolerate her discomfort for more than about forty-eight hours, and then reverted to the use of the barbiturate.

All efforts on our part to convince her of the futility and danger of these repeated experiences were unsuccessful, and during the last disturbed period before her readmission to the hospital she took 15 grains of pentobarbital without bringing about sleep, although the so-called toxic manifestations of staggering gait, markedly disturbed reasoning power, lack of emotional control, diplopia, headache and dizziness were very apparent at the time of her admission. While this case did not use barbitol continuously and constantly as morphine is used by the morphine addicts, nevertheless this case, as case 1, definitely illustrates periodic addiction as is so commonly found in the periodic alcoholics, a state that is accepted as addiction by all psychiatrists.

Case 3. A young woman, aged 32, had, about three months before admission to the hospital, become rather nervous. Every effort on the part of the family physician to discover the cause of this nervousness was fruitless. He prescribed a "rest cure" and placed her on a routine of rest, diet and phenobarbital.

After a month the phenobarbital became ineffective and a change was made to pentobarbital. After two weeks, 6 grains a day would not control the nervousness and insomnia. A change was then made to seconal, starting at $4\frac{1}{2}$ grains a day. It was necessary to increase this dosage gradually until at the time of admission she was taking 18 grains a day. The only noticeable effect was from a half to three quarters of an hour of sleep following each dose, plus toxicity.

Our problem of withdrawal was not difficult and in three weeks she was sleeping well and feeling fairly well, although she was taking no sedative. Of course she had some of her original chief complaints, that is, nervousness, but careful suggestive therapy made it possible for her to adjust to this nervousness so that she did not require any sedative, and after six weeks in the hospital she returned home, well adjusted but still in a mild nervous state.

Case 3 illustrates that the constant, continuous use of barbitol in any form will build up a tolerance and make it necessary to give larger and larger doses until the time comes when no dose, no matter how large, will produce prolonged sleep although the toxic manifestations of barbitol will be present. It may be the toxic manifestations which prevent the normal action of the barbitol which is sedation and sleep.

REPORT OF CASES

Case 4. A man, aged 46, had been driving himself excessively since 1932. He fell into the habit of drinking in order to counteract the effect of exhaustion and nervousness which resulted from the pace at which he was going. He soon realized that he was drinking too much and, consulting a physician, was told to take three grains of sodium amytal at night when he was too tired and nervous to sleep.

For about six months this seemed to be effective, but he noticed that he was using more and more until at the end of this period he was taking from

3 to 6 grains every night and occasionally a capsule during the day to control his nervousness. He became somewhat alarmed and began to drink again as a substitute for the barbitol. The results were disastrous.

He was unable to tolerate even a small amount of alcohol and his life became a constant succession of alcoholic experiences and heavy doses of barbiturates administered medically to control his excitement.

He was admitted to the hospital in a very toxic condition, extremely nervous, irritable and suffering from insomnia and anorexia. He was on the verge of a barbitol psychosis.

Withdrawal and detoxification took about three weeks. At the end of that time he began to feel like his old self and after six weeks in the hospital he left and took a motor trip lasting several weeks. When he returned home he seemed to have completely recuperated and to have rehabilitated himself.

We strongly advised him to restrict his activities and never permit himself to get into the condition that he was in when he began to take the sodium amytal. He returned to work and seemed to be getting along quite well until about four months later when he began to get nervous again. He consulted us and we insisted that he cut down upon his activities which, unfortunately, he had not done upon his return to work.

We prescribed no sedative, pointed out to him the effect of his last experience with those drugs, and finally brought about a readjustment of his economic position so that most of his activities outside of his regular work, which had been suggested and more or less forced upon him by his superiors, were eliminated.

At the present time he is doing only the work for which he is being paid, has no nervousness, no insomnia and is doing much better work than he ever did before.

All of these cases illustrate that laymen will use barbitol as the alcoholic uses alcohol. The clinical effect of the excessive use of alcohol and the barbiturates is similar. They both soon lose their expected sedative action. They both build up a tolerance. They both produce severe toxic reactions when excessive doses are taken over a long period of time. The drugs, when taken regularly or periodically, produce a psychologic need; that is, the patient, having experienced the effect, remembers and when a similar state of physiologic disturbance develops he is irresistibly pulled to the drug in order to relieve the discomfort. Neither of the drugs produces profound physiologic disturbances upon withdrawal and rehabilitation of both types of cases is usually more psychogenic than physical or pharmacologic. Morphine does produce profound physiologic changes and much of the clinical picture of morphine withdrawal is physiologic. Rehabilitation, however, is largely psychogenic.

Some investigative work has been done on the pathology produced by these drugs when excessive doses are taken. Mott² and coworkers, in 1926, reported a series of experiments in which cats and dogs were given heavy sub-

lethal doses of veronal. These doses were administered on successive days and the animals were killed after various doses and at intervals following the end of the period of drug intake. In all the animals who had been given doses over a period of seven or more days, numerous masses of a peculiar mucinoid material, from 5 to 60 microns in diameter, were found distributed throughout the central nervous system. Normal controlled tissue gave a complete absence of this material. There were signs of cell degeneration in the cerebellum, midbrain and spinal cord. This cell degeneration was accompanied by phagocytic cells which appeared to digest the nerve cells.

Vanderhorst³ injected a series of cats with barbituric acid compounds. The animals developed disturbances of coordination and the brains showed degenerative changes in the ganglion cells. These changes were similar to those seen in human brains following suicide. Mucinoid material was not seen but Vanderhorst gave his animals single doses while Mott used repeated doses which may account for this absence.

Autopsy studies on suicides following use of barbiturates show the same findings as reported by Vanderhorst. Stone⁴ reported a case of barbital poisoning simulating multiple sclerosis. McLeod⁵ and Ernest reported a case of barbital poisoning which clinically resembled lethargic encephalitis. Hassin⁶ reported the same kind of a case.

These clinical reports, plus the pathologic findings, definitely indicate that the barbiturates in heavy concentrations destroy brain tissue. The ataxia, incoordination, nystagmus and other evidences of central nervous system dysfunction seen in all cases of acute barbiturate poisoning are not only toxic phenomena but are evidences of a pathologic process in the brain. It is quite true that these symptoms clear up and superficially the individual seems to have returned to his formerly normal state. Mott² pointed out that several days after the barbiturates had been stopped on his laboratory animals the acute pathologic process had resolved, but the brains showed destruction of nerve cells which resulted from the process which had been in existence several days before. One heavy dose of barbiturates does no great amount of damage but the accumulated damage from repeated heavy doses will eventually destroy enough nervous tissue to lower the efficiency of the patient permanently. We saw this definitely in our study of case 1.

Little work has been done in controlled experiments upon the subject of tolerance and accumulative action. Stanton⁷ tested several series of rats over a relatively short period of

time with daily injections of phenobarbital and pentobarbital. He found that there was no increase of abstinence irritability but, on the contrary, irritability decreased progressively showing that the effect of the drug was present for some time after withdrawal. He concluded that rats do not become addicted to the barbiturates in the sense that there is an increased irritability following the withdrawal of the drug but that his experiments tended, rather, to show evidence of some cumulation of the depressive effect. He did find, however, that in those dosages large enough to produce an anesthetic action the duration of the somnifacient action appeared to be markedly shortened at the end of the injection period.

Approximately four months ago the staff of the Neurological Hospital started a series of experiments to determine, if possible, such factors as tolerance, accumulative action and pathology produced. We are not, of course, prepared to give a detailed report on this work since our experiments have not been completed. Several interesting effects and actions, however, have been noted. It is already apparent that there is an accumulative action. Our rats are divided into two series. The first group receives a daily injection comparable to a daily human dose. The second group receives a daily injection which is increased weekly, starting at a dosage comparable to a daily clinical human dose and increased each week by that amount. The minimum anesthetic dosage of pentobarbital sodium is supposed to be 50 milligrams per kilo.⁸ We were surprised, therefore, to get an anesthetic action at 18 milligrams per kilo.

We can give only one interpretation to this finding, that there is an accumulative effect in this drug; that is, the depressive effect continues over a period of some time after injection so that on succeeding days less and less of the drug is needed to produce the pharmacologic effect. There is no question but that this accumulative action far overshadows any tolerance that is built up from constant and continuous use of the drug but that there is a tolerance is very definitely shown by one of our series. Over a period of nine weeks we have tested one of the rats by placing it, as soon as the effect of the injection was apparent, upon a small box and then timing the period before the rat fell or climbed off the box. Any small amount of movement would tumble the rat off. At the beginning of the first week of this test the rat fell off in thirty minutes. At the beginning of the last week, the dosage having been increased approximately 50 per cent, the rat tumbled off the box in forty-three minutes. At the end of the first week the time required was thirteen

minutes, and at the end of the ninth week, thirty-seven minutes. The average recovery time from anesthesia on the first day of each of these weeks was thirty-four minutes. The average recovery time at the end of the weekly periods was twenty-seven minutes. Thus we see that the time of anesthesia at the beginning of each week of increased dosage goes up on the day that the dosage is increased, but during the week falls an average of approximately seven minutes. Thus, we believe that even in the face of the accumulative action, there is a tolerance built up for the drug. Human tolerance is more apt to manifest itself due to psychogenic factors, superimposed upon the pharmacologic tolerance.

The barbiturates should be controlled. Physicians should not prescribe them without a word of warning as to their possible dangers. This would be an about-face on the part of many physicians who have in the past believed and told their patients that the barbiturates, especially some of the newer synthetics, are harmless and non-habit-forming. We feel that the barbiturates should be put on a restricted basis so that they can be prescribed only by a physician and the promiscuous purchasing of these drugs by laymen should be stopped.

The states that have such laws have a surprisingly small incidence of barbiturate addictions. The Colorado Psychopathic Hospital admitted only thirteen barbital addicts in the two years ending December 31, 1936. This was .8 per cent of their total admissions. This is a semi-charity hospital, which differs in its organization set-up from the state hospitals in Missouri, and their patient population from the standpoint of economic conditions and social position can be compared to that of the private hospitals. During this same period of time the Neurological Hospital admitted twenty-eight patients who either were addicted to barbiturates alone or were using them in toxic doses accompanying other forms of addiction. This was 8.3 per cent of the admissions for that period, or ten times the incidence in the Colorado Psychopathic Hospital. Over 75 per cent of our total admissions give a history of having taken large doses of barbiturates for a more or less extended period before admission to the hospital. Some of this barbiturate was self-administered and some of it was prescribed by physicians. A comparison of the incidence of barbital addiction in states which have no law with states which have restrictive laws should be sufficient evidence of the need of such a law.

In the absence of such a law, or even if we had such restrictive laws, the physician must always remember that he is dealing with a drug which will fasten its influence upon certain psy-

chologic types so that for the rest of their lives their psychogenic mechanisms will crave and demand the oblivion produced by the drug. He should remember that if the layman is left to his own devices, and if no restrictions are placed upon the use of this drug, he will take more and more until his dosage reaches the toxic, dangerous level, and from this point continuous use will gradually destroy his brain and his mental and emotional efficiency and stability. A physician should always carefully analyze his patient before he prescribes any of these drugs, just as he does before he prescribes the opiates.

SUMMARY

We have attempted to show by selecting four illustrative cases that the barbiturates are habit-forming to certain psychologic types. This addictive action is similar to that of alcohol. There is, of course, a strong psychogenic factor in all of this class of cases but the psychogenic factors are important in all forms of addiction. It is our opinion that it requires a certain personality pattern in order that addiction may develop. Certain personalities never could or would become addicted to anything.

We have shown that excessive doses destroy brain tissue and produce extreme toxicity. Barbital addicts will take excessive doses and the deterioration frequently seen in these cases is due to the brain destruction which is accumulative over a period of time to a great enough extent to interfere with the patient's efficiency. The development of tolerance, while not as marked with these drugs as with some other forms of addiction-producing drugs, nevertheless leads the barbital addict on to taking larger and larger doses so that the patient is soon taking toxic doses which not only produce the clinical evidence of toxicity but also produce pathologic changes in the brain. These acute changes probably are the cause of the neurologic symptoms seen in barbital poisoning, both fatal and not fatal.

2625 Paseo.

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PROLONGED STIMULATION OF AUTONOMIC NERVES

THE IMMEDIATE AND REMOTE EFFECTS OF THE
BLADDER, RECTUM AND COLON

JOHN M. McCAUGHAN, M.D.

ST. LOUIS

In a previous publication^{8,11} we reported on the immediate and remote effects of dividing the extrinsic nerve supply to the bladder, rectum and colon. It was then pointed out that dilatation of rectum and colon was obtained in both dogs and cats after parasympathetic denervation. The degree of dilatation, however, in the former species was not striking. There were also disturbances in function such as constipation; and in cats a bladder stasis developed resulting in urinary infection. In dogs, no significant disturbances in bladder function occurred as evidenced by cystometrograms made early and late after operation.^{11,12} These results apparently confirmed the work of Adamson and Aird¹ on the experimental production of megacolon in cats and were based, as in their investigations, upon comparative studies of the barium filled colon before and after denervation. Our observations with regard to the urinary bladder are in agreement also with conclusions of Gruber⁷ who made an extensive review of the experimental literature and stated, "From these findings we may infer from pharmacological as well as physiological experiments that the bladder is innervated by the sympathetic and parasympathetic systems, each supplying both motor and inhibitor impulses and that there is no difference between the effects of these two systems except the possibility that the parasympathetic nerves carry stronger impulses." McDonald and McCrae¹³ have shown this to be true of the gastro-intestinal tract as well.

Inasmuch as the majority of such evidence seems to be based upon the production experimentally of destructive lesions, as by the excision of a segment of an autonomic nerve in survival experiments or as in acute experiments by the stimulation of nerves with the animal under anesthesia, it was decided to study the immediate and the remote effects of prolonged nerve irritation on the bladder, rectum and colon in unanesthetized animals and thus reduplicate, if possible, certain pathologico-physiological states observed in clinical neurology. This was accomplished by applying specially designed electrodes to the desired nerves and leaving them embedded directly within the tissues. Suitable

leads passing through stab incisions in the parietes permitted stimulation of the nerves at will. The investigations of Cannon in 1933³ and of Loucks in 1934¹⁰ had already demonstrated the practicability of such methods. Specifically, we attempted to determine in the dog: (a) the remote effects, if any, on the gross dimensions of the colon, rectum and bladder following chronic faradic stimulation of their autonomic innervation; (b) the effect of prolonged faradic stimulation on the ganglion cells, both intrinsic and extrinsic, of the bladder, rectum and colon, and (c) the effect of various frequencies and intensities of faradic current on intrarectal and intracystic tonus.

EXPERIMENTAL PROCEDURE

The electrode which we employed was a modification of the type described by Cannon and was made for us by a dental colleague. It consisted (Fig. 1) of a cylindrical cuff of twenty-two carat, thirty gauge plate gold 8 mm. \times 5 mm. in diameter and a shank of twenty-three gauge gold wire 10 mm. in length which was soldered to the cuff. The leads consisted of ten strands of thirty-four gauge insulated copper wire 20 cm. in length which was soldered to the shank with eighteen carat gold solder at a temperature of 1600° Fahrenheit. The outer part of the cuff and the shank were insulated by painting them with several coats of Nu-Enamel, a preparation which proved very satisfactory as it was flexible, acid proof, did not chip and caused very little tissue reaction even after weeks of burial within the peritoneal cavity.

Healthy female dogs of approximately equal weight were used. These animals, as a preliminary step, were trained to lie quietly on a table and to submit to catheterization and the introduction of rubber balloons into the rectum. Preliminary studies of the bladder capacity and

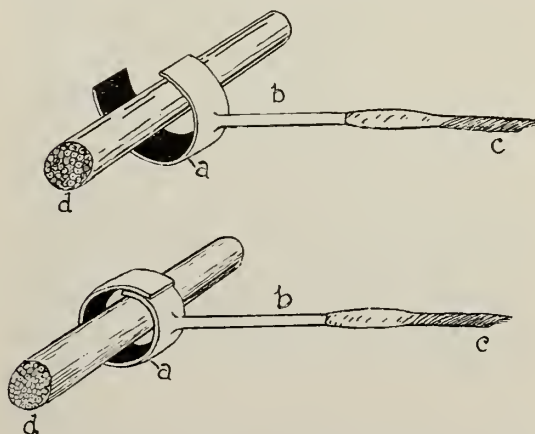


Fig. 1. Sketch of electrode: (a) gold cuff insulated on outer surface with enamel; (b) gold shank soldered to cuff; (c) ten strands fine enameled copper wire soldered to shank; (d) nerve.

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intracystic pressure were made by means of the Rose cystometer as previously described¹⁴ and the roentgenographic outlines of the rectum and colon obtained by means of barium enemata at a pressure of 55 mm. of mercury and an average filling of 150 to 200 cc. Finally, the animals were subjected to surgical operation and under ether anesthesia with a rigid aseptic technic, the electrodes were applied either to the hypogastric nerves (group I) or to the pelvic nerves (group II) and the leads brought out through the back as near the spine as possible. Three or four days were then allowed for the immediate recovery of the animal before beginning the stimulation of the nerves which was accomplished with faradic current from a Harvard coil and two dry cells. The indifferent electrode consisted of a sheet of block tin held snugly against the animal's flank which had been previously shaved and the skin kept continuously moist with a strong salt solution. The coil distance was usually set just within the point at which disagreeable sensory stimuli and generalized muscular contractions from spread of the current were produced. The optimal strength of stimulus was for our purpose naturally unknown. The average period of stimulation was for one hour and was repeated daily at about the same time. In the meantime, the animals were housed in appropriate cages and fed a uniform diet of

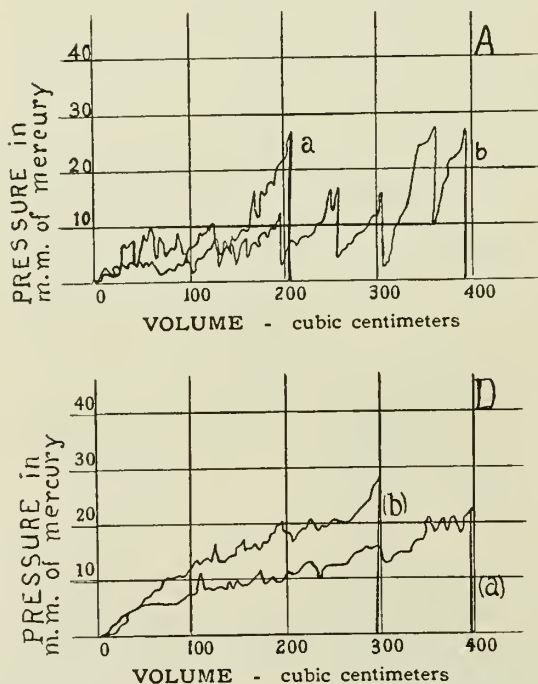


Fig. 2. Cystometrograms. (A) Experiment 1. Hypogastric nerve stimulation: (a) before operation, (b) twenty-ninth day after operation. Note greatly increased capacity and lowered bladder pressure. (D) Experiment 4. Pelvic nerve stimulation: (a) before operation, (b) tenth day after operation. Note increased bladder pressure and diminished bladder capacity.

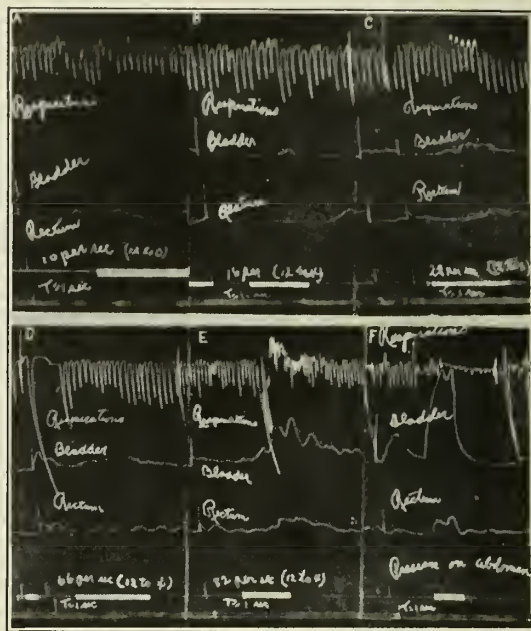


Fig. 3. Experiment 1. Hypogastric nerve stimulation. In (A) to (E) coil distance varied slowly from 12 cm. to 4 cm. while frequency was varied from ten to eighty-two per second. Note that height of contraction increases with increase in frequency. In D and E spread of current disturbs respiratory amplitude and rate. In F the effect of mechanical pressure on the abdomen.

dog biscuit and all the water desired. At intervals data were secured with reference to the condition of the bladder, rectum and colon by making cystometric determinations of the intracystic pressure and capacity and by repeating the roentgenograms of the colon. Graphic records of the effects of faradic stimulation of the sympathetic or parasympathetic nerves on the bladder and rectum were also obtained. This was done by recording the changes in intracystic and intrarectal pressure on a kymograph by means of appropriate tambours, balloons and catheters. Respirations were recorded simultaneously. The coil distance was varied to determine the effects of minimal and maximal currents. The effect of varying the rate of stimulation was also determined by means of a Harvard interrupter and a range of frequencies of from two to ninety-four per second were investigated. When all the foregoing data had been obtained and the period of stimulation completed, the animal was killed with ether. The condition of the large bowel and bladder was observed and compared with the appearance as noted previously at operation. The inferior mesenteric ganglion, a lumbar sympathetic chain ganglion, both the hypogastric ganglia, short segments of hypogastric and pelvic nerves, a small piece of the rectal wall and a small block of tissue from the interureteric part of the trigon of the bladder were removed. The ganglia were stained for micro-

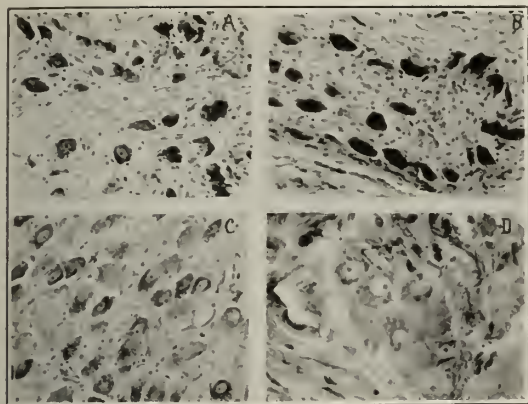


Fig. 4. Photomicrographs of ganglia cells. Experiment 1. Hypogastric nerve stimulation: (a) Inferior mesenteric ganglion ($\times 320$) numerous hyperchromatic and shrunken cells; (b) left pelvic plexus ($\times 320$). (c) Lumbar sympathetic chain ganglion cells normal. (d) Urinary bladder ($\times 960$).

scopic study with toluidine blue and the nerves with pyridine silver.

RESULTS

The following protocols are typical of the experiments performed.

Group 1. Stimulation of the Sympathetic Nerves to the Bladder, Colon and Rectum.

Experiment 1.—On January 9, 1935, electrodes were placed on the hypogastric nerves of a female dog, 10 kg. in weight. Cystometrograms and roentgrams of the colon had been made previously. Over a period of three weeks both nerves were stimulated for a total of thirty-five hours at a coil distance of 10 cm. Cystometrograms were made on the tenth and twenty-ninth days after operation. The cystometrograms showed an increased bladder capacity and a lowered intracystic pressure. (Fig. 2.) The urine was negative throughout. Examination of the colon films taken before and after stimulation of the hypogastric nerves fails to reveal any significant alterations in the caliber of the bowel. On the thirty-second day postoperatively, graphic records of the bladder and rectal response to stimulation by various frequencies and intensities of faradic current were obtained. The effect was always one of excitation and not of inhibition (Fig. 3). On February 16, the animal was killed under ether and a careful post-mortem examination performed. The gross diameters of the colon and bladder appeared practically the same as noted previously at the time of operation. The appropriate ganglia were removed for histological study (Fig. 4). The right and left hypogastric ganglia contained both shrunken hyperchromatic cells and large pale ganglion cells without granules. In addition, there were many normal cells. In the inferior mesenteric ganglion the majority of cells were shrunken and deeply stained. In an adjacent lumbar sympathetic chain ganglion the cells appeared fairly normal. The ganglion cells in sections from the bladder and colon appeared fairly normal. The hypogastric nerves themselves were intact.

Comment.—Chronic stimulation of the hypogastric nerves by means of faradic current apparently had no permanent effect on the size of the colon and rectum or bladder. From a func-

tional standpoint the bladder shows some evidence of sympathetic predominance as indicated by cystometrograms. The effect of faradic stimulation on the intrarectal and intracystic pressure in the unanesthetized dog is of considerable interest. A response, if obtained at all, was excitatory and not inhibitory. The current was varied so that stimuli of different strengths and frequencies were used but the result was not altered. Evidence, however, that irritation does occur from chronic faradic stimulation is afforded by the cytologic changes noted in the associated ganglia (Dolley,^{4,5,6} Kuntz⁹).

Group II. Stimulation of Parasympathetic Nerves to the Bladder, Colon and Rectum.

Experiment 2.—On March 1, 1935, electrodes were applied to the pelvic nerves of a female dog of 10 kgs. Beginning on the third day postoperatively, there was urinary incontinence and a diarrhea which lasted for one week. Faradic stimulation extended over a period of twenty-one days beginning March 5, each day the animal being given one hour of faradization via each electrode. The cystometrograms obtained on the tenth day following operation are shown in figure 2D. In comparison with the curves obtained before operation there is a decrease in intracystic capacity and an increase in intracystic pressure. In the two colon films taken after operation on March 5, and on March 16, respectively, there is a close comparison with the roentgen ray made before operation. Urinalysis on March 11 was negative. On March 10 graphic records were made of the effects of faradic stimulation on the intracystic and intrarectal pressures. (Fig. 5.) An excitatory response was obtained in every instance irrespective of coil distances or frequency of interruption. As an additional control the abdominal wall was divided longitudinally in the lower midline under local anesthesia of 1 per cent novocaine solution and sodium amytal, gr. vii, intravenously. The intestines were kept warm and moist with Ringer-Locke solution. The ends of the broken electrodes were secured and attached to leads from the secondary terminals of a Harvard coil. Stimulation was then carried out as before and the bladder, colon and rectum were observed to contract independently of the abdominal wall musculature. At the conclusion of this experiment the animal was killed

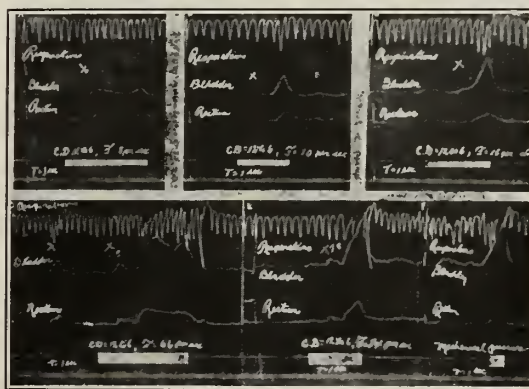


Fig. 5. Experiment 4. Pelvic nerve stimulation. In (A) to (E) the coil distance was varied from 12 cm. to 6 cm. while the frequency was varied from eight to ninety-four per second. The amplitude of contraction in bladder and rectum is greater with the higher frequencies. In (F) the effect of mechanical pressure is shown.

and the appropriate ganglia removed for study. The colon, rectum and bladder appeared normal in size. The sections (Fig. 6) showed many pale and vacuolated ganglion cells in both pelvic plexus, and in the ganglion cells of the rectum as well (exhaustion states). The particular sections from the trigon of the bladder did not contain any ganglia at all. The two pelvic nerves were intact and the cells from the inferior mesenteric and a lumbar sympathetic ganglion were normal.

Comment.—Prolonged stimulation of the parasympathetic innervation of colon, rectum and bladder had no demonstrable effect on the caliber of the bowel but in experiment 2 there was clinical evidence of a disturbed bladder and bowel function. The cystometrograms seemingly indicated an overaction of parasympathetic innervation and the microscopic sections of the ganglia in the pelvic plexus and in the rectal and bladder wall showed definite evidence of irritation. The effect on intrarectal and intracystic pressure changes in response to stimulation with different strengths and frequencies of faradic current are again excitatory.

RECAPITULATION

The effect on the colon, rectum and bladder of prolonged faradic stimulation of their innervation was investigated in two groups of dog; (1) Stimulation of hypogastric (sympathetic) nerves, and (2) stimulation of the pelvic (parasympathetic) nerves. Data on the following points were secured: (a) The effect on the caliber and function of the large bowel, rectum and bladder; (b) effect on the ganglia cells of the colon, rectum and bladder and, (c) the immediate effects of faradic stimulation with currents of varied intensities and frequencies on the intracystic and intrarectal tensions.

With respect to (a) it was found that no significant alteration in the dimensions of the colon,

rectum or bladder took place. Disturbance in the function of both bladder and rectum occurred in the experiment on stimulation of parasympathetic nerves. The cystometric determinations indicated a definite effect on the urinary bladder. Stimulation of the sympathetics resulted in an increase in bladder capacity and a decrease in intracystic pressure. Stimulation of the parasympathetics resulted in diminished bladder capacity and an increased pressure. In regard to (b) definite irritational effects on the cellular structure of the ganglia of both hypogastric nerves and pelvic nerves were obtained by prolonged faradic stimulation. Finally in (c) the result, namely, that faradic stimulation of either sympathetics or parasympathetics at different frequencies and intensities invariably produced visceral contraction, lends additional support to the view that the sympathetic and parasympathetic systems contain both excitatory as well as inhibitory fibers.

I wish to acknowledge my indebtedness to Dr. W. T. Coughlin of the Department of Surgery of St. Louis University Medical School, for his helpful criticism and many invaluable suggestions.

Metropolitan Building.

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DISCUSSION

DR. ALBERT KUNTZ, St. Louis: I would like to speak more particularly of the technic employed in these experiments. The method used for stimulating the nerves

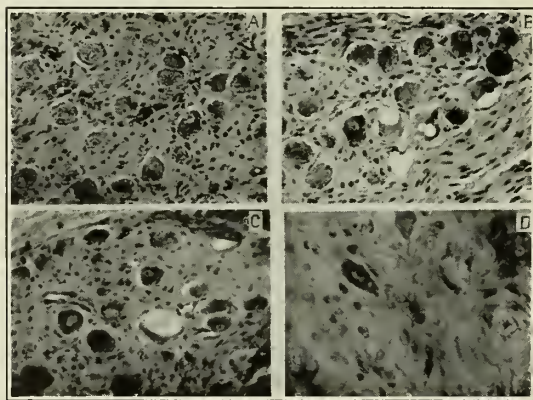


Fig. 6. Photomicrographs of ganglia cells. Experiment 4. Pelvic nerve stimulation: (a) Inferior mesenteric ganglion ($\times 320$) normal, (b) left pelvic plexus ($\times 320$). Some hyperchromatic cells while others appear pale and vacuolated. (c) Right pelvic nerve ($\times 320$), similar to (b). (d) Ganglion cells from the rectum ($\times 960$). Note large pale vacuolated ganglion cells.

in a living animal is not altogether new, but has been applied in a situation in which both afferent and efferent fibers are affected and in a part of the autonomic nervous system in which the fibers are not all of the same kind. In general we have been of the impression that stimulation of the sympathetic nerves of the bladder inhibits its musculature, whereas stimulation of the parasympathetic nerves activates it; but as you have seen these experiments do not bear this out. As the speaker has pointed out, certain other work also has indicated that the sympathetic supply to the bladder and other pelvic organs contains excitatory as well as inhibitory fibers. The effect of moderate stimulation of either the sympathetic or the parasympathetic nerves is not as marked as the effect of elimination of one or the other set. For instance, if the parasympathetic nerves were severed the effect of the sympathetic nerves would probably be more marked than the effect of moderate stimulation of these nerves. Likewise, if the sympathetic nerves were severed the effect of the parasympathetic nerves would probably be more marked than the effect of moderate stimulation of these nerves. But we have to consider that the afferent fibers in the nerves in question are being stimulated as well as the efferent, and reflex effects are elicited through the sympathetic nerves in the one case and through the parasympathetic nerves in the other. That the stimulation has an effect on the ganglion cells is apparent. The pictures we have seen of these ganglion cells indicate stimulation. That is, they indicate that the cells have been activated to a greater extent than they normally are.

The results of this work have a bearing on the problems of surgery involving the autonomic innervation of the pelvic organs, but the results of stimulation of the sympathetic nerves here are not altogether comparable to the results of removal of the parasympathetic nerves. On the other hand, the results of stimulation of the parasympathetic nerve are not altogether comparable to the results of removal of the sympathetic nerves. Furthermore, we are dealing with normal animals; that is, the conditions were normal to begin with, whereas in cases in which surgery of the autonomic nerves of the pelvic organs is indicated the balance between the sympathetic and parasympathetic nerves has been disturbed. Yet this is a method which promises to give us further information than we have now regarding the mechanism of the sympathetic and parasympathetic nerves in the pelvic region, where there probably is more mingling of excitatory and inhibitory fibers in both system than in any other part of the body.

Edward J. Donovan, New York (*Journal A. M. A.*, Aug. 21, 1937), states that congenital hypertrophic pyloric stenosis occurs about seven times more often in boys than in girls. In the group reported on there were seventeen girls and 126 boys. Vomiting is always the first symptom and in the majority of the cases begins between the second and the fifth week of life. The tumor, caused by hypertrophy of the circular muscle of the pylorus, is pathognomonic of the condition and may be felt in every case. The Fredet-Rammstedt submucous pyloroplasty is the most satisfactory operation and gives a permanent result, as shown by the follow up of the cases reported. There were no deaths in this group. One death occurred in a group of 100 cases reported in 1932, making a total of one death in the last 243 cases. Preoperative preparation is the greatest factor in bringing the mortality to its present level. The complication most to be dreaded is accidental opening of the duodenum.

THE DOCTOR'S HEART

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For the last few years heart disease has been the leading cause of death in this country. It is now generally accepted that there is a definite increase of circulatory diseases and that this increase is not due merely to better diagnosis or people living to an older age. Younger individuals are experiencing vascular accidents which, in previous years, affected only individuals above 60 years of age.

Medical men are prone to think in terms of patients and not of themselves. This paper is written with the purpose of calling to the attention of medical men that heart disease is the leading cause of death in their profession, and that it has a greater incidence in their profession than it has in the general population. Statistics show this condition. The author is well aware that many errors creep into statistical data, yet a survey shows the trend of this situation. Too, statistics gleaned from various sources and brought together are more impressive and striking because of their comparative value. Again, a collection of statistics brings out some interesting facts. For instance, it is shown that in the last five years more deaths occurred among doctors in March and January than in any other months of the year.

It is interesting to note that in the last two years for which data is available, 1933 and 1934, there is a definite increase in the deaths from heart disease of the general population. This is shown in the following table.

Table 1. Deaths From Heart Disease in the General Population

	1933	1934
Total Deaths	1,342,106	1,396,903
Diseases of the Circulatory System	314,004	333,296
Percentage	23.32	23.85

Table 2. Among Physicians

	1931	1932	1933	1934	1935
Total Deaths	2952	3142	3354	3231	3319
Most Deaths	March	January	January	March	January
Average Age	63.8	64.1	64.4	64.3	64.2
Graduates	4735	4936	4895	5038	5101
Net Increase	1783	1794	1686	1807	1782

Table 2, which has been compiled from the yearly statistics given in the *Journal* of the American Medical Association for the last five years, reveals that the number of graduates of medical schools is far in excess of the number of deaths of practicing physicians. This makes one wonder what distribution occurs in the new group of graduates. Do they actually take the

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places of those who have died? Where does the excess number gravitate? There has been very little difference in the last five years in the average age of death, the age oscillating around 64.1 years.

Table 3. *Leading Causes of Death in Physicians*

1931	1932	1933	1934	1935
Heart 1065	Heart 1101	Heart 1131	Heart 1291	Heart 1345
Cerebral Hemorrhage 365	Cerebral Hemorrhage 346	Cerebral Hemorrhage 360	Cerebral Hemorrhage 336	Pneumonia 360 Cerebral Hemorrhage 355
Pneumonia 312	Pneumonia 284	Pneumonia 313	Pneumonia 320	
Arterio- sclerosis 252	Arterio- sclerosis 259	Cancer 286 Arterio- sclerosis 248	Cancer 296 Arterio- sclerosis 280	Arterio- sclerosis 318

Table 3 gives the leading causes of death of physicians for the years 1931 through 1935. Here it is seen that the diseases of the heart have increased yearly, that cerebral hemorrhage is usually in second place and that arteriosclerosis is one of the five leading causes of death. However, to arrive at the actual incidence of circulatory diseases, the deaths caused from cerebral hemorrhage and arteriosclerosis should be added to those of the heart deaths. This then would give us a more accurate picture of vascular diseases and would show an incidence five times greater than its nearest competitor, pneumonia.

Table 4. *Deaths From Heart Disease*

	Average Age	Total Deaths	Heart Deaths	Average
1931	63.8	2952	1065	36.07
1932	64.1	3142	1101	35.36
1933	64.4	3354	1131	33.72
1934	64.3	3231	1291	39.95
1935	64.2	3319	1345	40.52

Table 4 shows the percentage of heart deaths. In 1934, of the total deaths of all physicians 39.95 per cent were caused by heart disease. This figure is almost double the percentage previously shown for the general population, and it is to be remembered that the figures for the general population included all diseases of the circulatory system while the figures for physicians included only heart disease. If this be true, the physician should begin to pay some attention to his own health.

Table 5. *Classification of Heart Deaths*

	1934	1935
Total Heart Deaths	1291	1345
Myocarditis and Endocarditis	326	355
Coronary Thrombosis	137	220
Angina Pectoris	119	146
Pericarditis	1	2
Other Diseases of the Heart	708	622

To present the various diagnoses given in the doctors' deaths, I present Table 5. Incidentally, 1934 is the first year in which statistics include a separate diagnosis of coronary thrombosis. It is interesting that it was almost a quarter of a century after it was first described in 1910 as a definite clinical picture that the diagnoses of this disease on physicians' death certificates were sufficient to warrant a separate classification. In this table we note that the majority of heart deaths remain undiagnosed on the doctors' death certificates. This is a deplorable situation.

For a moment I might digress and suggest to the members of the medical profession that certainly their cause of death should be more accurate. Shall we instruct our successors to perform a postmortem on us? Would this not be a stimulus for more postmortems in the general population?

In view of the great number of unclassified heart deaths of physicians throughout the country, it was thought that an analysis of statistics of a small group might be of importance and of additional value. It was with this in mind that I have compiled statistics regarding the membership of the Jackson County Medical Society. Table 6 is self explanatory.

Table 6. *Membership of Society, 1936*

Membership of Jackson County Medical Society	594
Age of Youngest Member	26
Age of Oldest Member	92
Average Age of Membership	49.94

Table 7. *Deaths of Jackson County Members*

	Average Age	Total Deaths	Heart Deaths	Percentage
1932	66.4	7	3	42.85
1933	60.5	11	3	27.27
1934	64.5	13	5	38.46
1935	60.6	9	5	55.55
1936	61.2	18	5	27.77
5 yrs.	62.6 av.	58	21	36.2 average

Table 7 shows the total deaths and the heart deaths, with the averages, in the Jackson County Medical Society membership for the years 1932 through 1936, and shows an average of 36.2 per cent heart deaths.

Table 8. *Analysis of 21 Heart Deaths*

Coronary Occlusion	8	(1 with left ventricular rupture and 1 with angina pectoris)
Coronary Sclerosis	6	(1 with ventricular fibrillation and 1 with acute dilatation)
Chronic Myocarditis	5	
Rheumatic Heart Disease	2	(1 aortic and mitral, and 1 mitral with subacute bacterial endocarditis)

Table 8 shows that nineteen of the twenty-one heart deaths were due to the degenerative group of heart disease and only two the result of rheu-

matic heart disease. At an average age of 62.6 years at death, this shows a high percentage of deaths due to the degenerative type of heart disease.

Table 9. Life Spans

26.8	Average age of medical school graduate (1928)
40.71	Life expectancy at that age (1929-31)
67.51	Average life of white male
62.6	Average life of member of Jackson County Med. Society
64.1	Average life of all physicians in the United States

Table 9 shows an interesting comparison of the life span of the physician and the life span of the man in other walks of life.

In order to ascertain the number of members with heart disease in the Jackson County membership, a questionnaire was sent to fifty leading doctors. The returns are shown in table 10. It is seen that already at 49.94 years, the average age, 13.97 per cent show heart ailments. I again call to your attention the high incidence of degenerative heart disease occurring in sixty-two out of eighty-three cases, or a percentage of 74.69.

Table 10. Present Members of Jackson County Medical Society

Doctors treated 232	83 (35.7%) show heart ailments (1 with angina)
I Rheumatic	12
II Thyroid	4
III Nervous	2
IV Degenerative	62 { Hypertensive 12 Coronary sclerosis 31 Coronary occlusion 19
V Post-infectious	3 Post-influenzal 2 Post-pneumonia 1
Arrhythmias	17
Extrasystoles	9
Paroxysmal tachycardias	4
Paroxysmal auricular tachycardias	1
Paroxysmal auricular flutter	1
Fibrillation	1
Heart block	1

Table. 11. Survey of Premedics at the University of Kansas

	1935-1936	1936-1937	
History acute rheumatic fever	8	History of "Heart disease"	4
Total 279		Findings	6 (2.1%) Rheumatic Heart disease
			1 aortic
			5 mitral
			3 Tachycardia
			1 Extrasystole

Table 11 is a survey of the premedics at the University of Kansas for the two years, 1935 and 1936. Six individuals of a total of 279 show rheumatic heart disease, or an incidence of 2.1 per cent. This percentage is comparable to the estimated percentage of rheumatic heart disease in the general population. It is interesting that at this institution a rheumatic heart does not keep an individual from going into the study of medicine.

CONCLUSION

1. Heart disease is the leading cause of death among United States physicians causing about 40 per cent of all deaths, almost double the percentage found in the general population (23.85 per cent).

2. Heart disease is the leading cause of death of members of the Jackson County Medical Society (36.2 per cent).

3. Degenerative heart disease is the cause of 90.47 per cent of all heart deaths in the Jackson County membership.

4. At the average age of graduation (26.8 years), the life expectancy of the average white male is 67.51 years, while it is 64.1 years for the average physician in the United States and 62.6 years for the Jackson County doctor.

5. A recent census of leading physicians shows that out of 594 doctors (the membership of the Jackson County Medical Society, average age 49.94), 232 have consulted a physician in the last two years and eighty-three of these show some heart disturbance. It is impressive to note that 74.69 per cent of these show degenerative heart disease.

420 Professional Building.

I am indebted to the statistics department of the American Medical Association, Dr. Louis I. Dublin, Dr. Edwin H. Schorer, Dr. Ralph Canuteson and Mrs. Rosa Hibbard for their help on statistics.

Frank R. Ober, Boston (Journal A. M. A., Aug. 21, 1937) reviews what has been learned to date from the results of fasciotomy on patients with lame back and sciatic pain. Early in the winter a general questionnaire was sent out to the members of the American Academy of Orthopedic Surgeons and others asking them to send in the number of patients operated on by them and the results obtained and to make any comments on their observations. Forty-one reports were received, giving data on 340 cases. To these are added seventy-five reports from the clinic with which the author is associated. 1. Division of the fascia lata above the trochanter has a place in the treatment of troubles low in the back. 2. The operation should not be performed when there is x-ray evidence of abnormality of the spine. 3. The operation is indicated in cases of lame back and in cases of pain along the sciatic nerve if the normal lumbosacral angle is increased or decreased. 4. Contracted fasciae latae can exert abnormal pull on the pelvic bones and as a result disturb the mechanics of the whole spine. 5. Complete relief was obtained in 314 patients as a result of fasciotomy. 6. With such a high percentage of good results, this operation has a distinct place in the treatment of sciatic pain and pain low in the back in well selected cases. 7. Sciatic pain is not the prime indication for surgical operation on the fascia lata until pathologic changes of the spine or the nerve have been ruled out. 8. Fasciotomy should not be done unless there is conclusive evidence that the fascia lata shows contracture. 9. It is impossible to state definitely at present whether the mechanical distortion of the spine causes sciatic pain or whether this pain is due to pressure from spasm of the muscles about the posterior aspect on the hip joint.

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OCTOBER, 1937

EDITORIALS

THE KANSAS CITY FALL CLINICAL CONFERENCE

The fifteenth annual Fall Clinical Conference of the Kansas City Southwest Clinical Society will be held in the Municipal Auditorium, Kansas City, Missouri, October 4, 5, 6, 7, 1937. The intensive program will bring a large number of distinguished guest speakers for the meeting. Members of the medical profession of Greater Kansas City are contributing their part by appearing on the program with the distinguished guests. The officers and general membership have provided not only the excellent program but worth while entertainment for the guests. On Tuesday evening, a stag smoker will supplant the usual scientific meeting of the Jackson and Wyandotte County Medical Societies.

A round table luncheon will be held each day of the conference at the President Hotel. Guests will have ample time to enjoy the excellent food of the hotel and renew old acquaintanceships with friends found at past conferences. At the various luncheons, short addresses will be made by Father Alphonse M. Schwitalla, St. Louis, on "The Influence of Economic Factors on the Medical Practice of the Future"; Dr. Alfred E. Barclay, Oxford, England, on "It Is Very, Very Wrong to Doubt What Nobody Is Sure About"; Dr. George Norberg, Kansas City, will reminisce on "Some of the Old and Some of the New"; Dr. Ferris Smith, Grand Rapids, Michigan, on "Evolution of Plastic Surgery," and Dr. Frederick A. Collier, Ann Arbor, on "Administration of Fluids."

Entertainment for the visiting ladies has been excellently planned by Evan S. Connell, the General Chairman of the Ladies Committee of the Clinical Society.

Registration for the meeting will be in the

foyer of the Municipal Auditorium. The educational scientific exhibits will be located in the promenade of the arena of the Auditorium and will inform guests of the recent scientific progress of medicine. Technical exhibits of a large number of nationally known firms will display the latest in equipment and supplies.

Kansas City has achieved an enviable reputation of being one of the great medical centers of the United States and this Conference should serve as an instructive attraction to the medical profession of the Southwest.

POLIOMYELITIS

The last few weeks have witnessed the appearance of a few cases of poliomyelitis within the borders of the state. In neighboring Illinois the number of cases has been such as to cause the closing of the schools in some cities. To date there has been no evidence of a real epidemic of infantile paralysis in Missouri. Yet the threat of the disease demands realistic treatment to the end that parents are not needlessly alarmed, that schools are not needlessly closed, that children themselves are not needlessly imbued with fear.

In general, poliomyelitis is only mildly contagious. It is probably spread by healthy carriers for whom there is no method of detection; hence, isolation of carriers cannot readily be practiced. It is impossible to estimate the number of persons infected with poliomyelitis in whom a diagnosis is never made because the paucity of symptoms fails to suggest specific diagnostic measures. The life long sequelae which the minority of infected persons show has caused the disease to be looked upon askance, to be regarded with unwarranted fear. Yet, there should be full publicity regarding the imminence of any real epidemic; the public should be thoroughly informed of the existence of the disease and should be urged to adopt the usual precautionary measures of avoiding contact with persons known to have it or suspected of having it; they should be urged to remain away from crowds, to keep themselves physically fit in every respect, to obtain sufficient rest and to maintain an optimal nutritional status.

In recent years interest has been focused upon the use of nasal sprays as a means of preventing the invasion of the virus of poliomyelitis. It may be stated without equivocation that no adequate scientific evidence exists to support the assumption that these sprays are of the slightest value. It is to be expected that if a large number of persons use them in an area confronted with an epidemic, a large number of persons will escape the disease; but it must be

remembered that because the disease is only mildly contagious a large number of persons would have escaped it anyhow. It has not yet been proved that the use of such sprays may not actually decrease immunity by washing away the protective secretions of the nose and throat.

The use of attenuated virus cultures for the artificial development of immunity to poliomyelitis has also received attention; the method is mentioned only to be condemned for there is seemingly incontrovertible evidence to show that such immunizing attempts have actually been followed by the development of the disease.

There are however preventive steps which may be taken for the protection of persons exposed to the disease or believed to manifest its early stages. The intramuscular injection of whole blood (30 cc.) from an adult (for adults are usually immune) will be found valuable in the case of children known to have been exposed. The injection of blood serum from cured cases of poliomyelitis enhances immunity and may actually prevent the development of paralysis in an already infected person. However, it should never be used if paralysis has become manifest. In time of epidemic it would seem to be good practice to inject either whole adult blood or, preferably, the serum of cured cases into any child suspected of having contracted the disease. For practical purposes at such a time any child with the symptoms of an acute infection in whom the deep and abdominal reflexes are diminished or absent may be considered to be infected in the absence of any other explanation of the physical findings, more particularly if spinal fluid findings are consistent with such a diagnosis.

Therapeutically rest is of the utmost importance once the disease has developed. The whole body must be rested, paralyzed extremities should be splinted or otherwise supported. At an appropriate time, to be determined in each case individually, massage, electrical stimulation, passive motion and other forms of physiotherapy are to be invoked. Orthopedic consultation and active assistance in management during the acute stage may prove invaluable in the prevention of contracture and deformity.

Should poliomyelitis achieve anything like epidemic proportions in this state let the profession give full publicity to all the facts, let it instruct the public through the press and through the radio, let it make no effort to hide the gravity of the situation. But until that time let it deny rumor and exaggeration. For there is no fear upspringing in the mind of the layman to compare with the fear borne of ignorance and misinformation.

SPRAINS

The common sprain is frequently encountered by the medical practitioner. Often it receives cursory treatment, perhaps a splint for a few days, to be then disregarded. In some instances the torn ligaments heal within the period of treatment; more often they do not. The recent investigations of Miltner, Hu and Fang¹ throw considerable light on the pathology of joint sprains and indicate that treatment over a longer period of time should be given for them.

Miltner and his colleagues applied manual force to produce sprains of varying severity in the knee and ankle joints of rabbits. The animals were killed at intervals and the diseased areas subjected to microscopic examination. The traumatized tissues underwent the series of changes ordinarily associated with inflammatory reactions. Localized hemorrhages were a constant finding. In some instances the synovial surface was covered with fibrin which in conjunction with other findings led to the assumption that sprain may be the forerunner of a chronic traumatic arthritis. In the more severe injuries the joint cartilage showed necrosis and fibrillation and in one case there was a horizontal fissure of the cartilage still present ten weeks after injury. Bits of bone, which did not show in the roentgen ray examination, were torn loose and lay embedded in the ligaments attached to the joint.

The most instructive portion of Miltner's report has to do with the duration of injury following ordinary sprains. In the milder cases microscopic study showed that healing was not complete until the sixth week and in the more severe cases healing did not take place until the tenth week. Since healing is so slow a chronic inflammatory reaction may be set up. Persistent pain and discomfort are easily explained. Yet, these secondary manifestations should be prevented.

While in the milder cases all external evidence of trauma had disappeared by the end of the fourth week it is to be remembered that the microscope showed the process still undergoing healing in the sixth week. On this basis the suggestion of Miltner that sprains should be immobilized for at least two weeks after all external signs of disease have disappeared seems reasonable. In the more severe cases this immobilization must be carried out for longer periods of time, even for as long as eight or ten weeks.

Unfortunately Miltner was unable to produce satisfactory immobilization of the joints

1. Miltner, L. J.; Hu, C. H., and Fang, H. C.: Experimental Joint Sprain, *Arch. Surg.* **35**:234, 1937.

of rabbits so that he could study the effect of immobility on the rate of healing.

A NEW OPERATING ROOM HAZARD

The development of the aseptic technic has been singularly free of hazard for both patient and surgeon. In this it differs from ordinary industrial advancement which has so frequently been accompanied by the simultaneous introduction of new hazards. In general, each surgical advance has tended definitely to lessen the risk taken by the patient. True, there have been occasional instances of tetanus infection of wounds. This has generally been traced to catgut though it is impossible to state categorically that it resulted from improper sterilization. Until the exact technic was learned there have been rare instances of explosions following the administration of some of the newer general anesthetics but such mishaps have latterly been avoided by insistence upon a routine method of administration which has been found to be safe.

The sterilization of the gloves and linens used by the operating team has reduced the chance of wound infection to a minimum as has the strict disinfection of the skin area to be incised. The art of handling tissue is so well advanced that trauma with postoperative reaction from this cause is almost unknown. It is a bit surprising, therefore, to learn that a substance commonly employed in the operating room can give rise to foreign body reactions of such intensity as sometimes to require a second operation, usually under a mistaken diagnosis. Now that a few cases have been found and the subject called to the attention of the profession it is to be expected that additional cases will be reported and that the condition will not long be looked upon as a rarity.

Fienberg¹ saw a 44 year old woman who reentered the hospital on account of a tender mass which had formed in the region of the scar left from an appendectomy performed seven years before. No preoperative diagnosis was possible but exploration seemed imperative. An unusual gray translucent tissue occupied much of the fascia; in the omentum were several small translucent nodules and a generalized scattering of thin translucent granular tissue; there were some enlarged and firm lymph nodes. In the absence of a definite malignancy all that could be excised was the nodular mass in the old operative scar.

Microscopically this showed a dense hyaline connective tissue containing numerous pseudo-

tubercles. Numerous foreign body giant cells were found but it was not until the sections were subjected to analysis by means of crossed Nicol prisms that the offending substance could be recognized. A second similar case was speedily found, the tumor mass preoperatively being considered a recurrent thyroid hyperplasia. Further analysis led to the conclusion that the foreign body responsible for the reaction in these two cases was ordinary talcum powder such as is used in the preparation of rubber gloves. His interest whetted by these two cases it was not difficult for Fienberg to find three additional ones making a total of 5 out of 30,000 operations. That the actual incidence of this type of foreign body reaction is even higher is indicated by the fact that in several additional cases the author was not able to distinguish between unabsorbed suture material and talcum powder residue as the causative agent.

Fienberg injected a suspension of talcum powder into rats and sacrificed the animals after seven weeks. A foreign body reaction similar in most respects to that observed in the human cases was found in each of the three animals studied. Tubercle formation was not found but this was probably due to the short period of time that the foreign material was allowed to remain in the tissues.

In order that such granulomatous reactions may be avoided and that patients need not be subjected to needless secondary operation, a single, simple precaution is required to remove this latest hazard of the operating room. All gloves should be rinsed in either sterile water or the antiseptic solution preferred by the surgeon before they are allowed to come into contact with the operative area. Even if it be true that these foreign body reactions arise only in persons specially susceptible to the irritating effects of talcum powder they are completely preventable by the simple expedient suggested by Fienberg.

THE NATIONAL CANCER INSTITUTE

A National Cancer Institute was created as a division of the United States Public Health Service by the 75th Congress. The bill authorizes an appropriation of \$700,000 annually to be utilized in cancer research and provides \$750,000 for the erection of a building in which the new cancer activities will be centered. The bill was presented by Senator H. T. Bone of Washington in the Senate and a companion bill in the House was sponsored by Representatives A. L. Bulwinkle of North Carolina and Maury Maverick of Texas.

1. Fienberg, R.: Talcum Powder Granuloma, Arch. Path. 24:36, 1937.

The general activities contemplated are outlined in Section 2 of the bill as follow:

"(a) To conduct, assist and foster researches, investigations, experiments and studies relating to the cause, prevention and methods of diagnosis and treatment of cancer;

"(b) To promote the coordination of researches conducted by the Institute and similar researches conducted by other agencies, organizations and individuals;

"(c) To procure, use and lend radium as hereinafter provided;

"(d) To provide training and instruction in technical matters relating to the diagnosis and treatment of cancer;

"(e) To provide fellowships in the Institute from funds appropriated or donated for such purpose;

"(f) To secure for the Institute consultation services and advice of cancer experts from the United States and abroad; and

"(g) To cooperate with state health agencies in the prevention, control and eradication of cancer."

A National Cancer Advisory Council of six was created to assist the Surgeon General in carrying out the duties imposed on him by the bill, the members to be appointed by the Surgeon General selected "from leading medical or scientific authorities who are outstanding in the study, diagnosis or treatment of cancer in the United States."

DR. GEORGE H. SIMMONS

Dr. George H. Simmons, Editor and General Manager Emeritus of the *Journal of the American Medical Association*, died in Chicago, September 1. Dr. Simmons was born in Moreton, England, January 2, 1852, and came to the United States in 1870. He studied in several schools and received his M.D. degree from the Hahnemann Medical College, Chicago, in 1882, and from the Rush Medical College in 1892. In 1884, previous to his study at Rush Medical College, he served in the Rotunda Hospital in Dublin. From 1884 to 1899 he practiced medicine in Lincoln, Nebraska. In 1896 he established the *Western Medical Review*, acting as its editor, and from 1895 to 1899 he was secretary of the Nebraska State Medical Society and also secretary of the Western Surgical and Gynecological Society. During this early period of his development he gave indications of the editorial genius which was later to bring him world-wide fame. As acting editor of the *Nebraska Farmer*, assistant city editor of the *Nebraska State Journal* and field correspondent of the *Omaha Republican* and the *Kansas City*

Journal, he aided in paying his way through the university and the medical school, and developed a taste for editorial work which followed him throughout his life. In Lincoln he became known as a leader in reform movements.

In 1899, when the Board of Trustees of the American Medical Association was in search of a secretary and editor, after consideration of a number of leading figures in the medical, literary and political world, the Board chose Dr. Simmons for the position of General Secretary which he filled from 1899 to 1911, and of Editor, which he occupied until 1924. In 1901 he became also general manager.

To tell the story of Dr. Simmons' services in the period from 1899 to 1924 is to tell the history of the American Medical Association in that same period and the following information was furnished by the American Medical Association.

"Before its reorganization in 1901 the American Medical Association was not a truly representative body and the method of administration of its professional affairs and its business were, to say the least, disorganized. When Dr. Simmons became Secretary in 1899 he initiated the movement which led to the appointment of a committee of which Dr. J. N. McCormack of Kentucky was chairman and he secretary to consider ways and means of reorganization. At the meeting of the Association in St. Paul in 1901 the general principles and policies outlined in the Constitution and By-Laws presented by that committee were adopted. The present plan of organization of the American Medical Association is largely due to the work of that committee.

"The *Journal of the American Medical Association* was established in 1883. When Dr. Simmons took over the editorial supervision and management, its total subscription list was approximately ten thousand. From that time it showed continuous improvement. Furthermore, under his leadership it became a significant weapon in the initiation and progress of great movements for the advancement of medical education and medical science. In 1901 the *Journal* began the annual publication of information concerning the medical schools of the country. In 1903 it undertook publication of the results of the examinations of graduates in medicine for licensure by state examining boards. The next step was the organization of the Council on Medical Education and Hospitals in 1905. At the same time the Council on Pharmacy and Chemistry was developed, and in association with it the chemical laboratory and the Department of Propaganda for Reform, which eventually became the Bureau of Investigation. Thereafter came other councils

and departments which were logically an outgrowth of the developments that have been mentioned. In the field of publication the *Journal* was supplemented by the 'American Medical Directory' which was an outgrowth of the Biographic Department; the various archives; i. e., of Internal Medicine, of Neurology and Psychiatry, of Dermatology and Syphilology and of Surgery; the *American Journal of Diseases of Children* and many other publications. It occurred to Dr. Simmons to begin publication of a quarterly cumulative index of leading medical publications as a means of providing physicians with up to the minute references to medical periodical literature in an easily accessible form. The success of this publication was so great that it eventually was combined with the 'Index Medicus' into the 'Quarterly Cumulative Index Medicus.' *Hygeia*, too, was initiated under Dr. Simmons' leadership as General Manager.

"In 1908 he was commissioned a First Lieutenant in the Medical Reserve Corps of the United States Army; in 1917, when the United States entered the war, he was made Major of the Medical Reserve Corps and served diligently in the Personnel Division. In 1921, by order of President Harding, he was awarded the Distinguished Service Medal.

"In 1924 he resigned as Editor and General Manager of the American Medical Association and became Editor and General Manager Emeritus. At that time a number of leaders in American medicine arranged for the painting of his portrait which was presented to him at a testimonial banquet in Chicago on June 9, 1924.

"This, then, is briefly the record of Dr. George H. Simmons as an executive and an administrator. His work for the American Medical Association was characterized by intelligence, unselfishness, initiative and righteousness. In his personal life he had his share of physical and mental suffering. He weathered storms of unjust criticism and false characterization of his administration. He devoted himself almost objectively, and completely devoid of personal interest, to the public career which he had chosen. Unquestionably he was the greatest factor in his generation in the development of the American Medical Association and the profession that it represents.

"After his retirement he traveled extensively for several years. Since that time he has resided in Florida, but has spent some time every other year in Great Britain and in the intervening years in Chicago, frequently going to the American Medical Association office and making available to his successors the experience of years and the brilliant insight which he brought

into medical problems. The medical profession of the United States owes him a debt which it could never pay and which he never wished to collect."

NEWS NOTES

The Missouri Tuberculosis Association will hold its thirtieth annual meeting in Jefferson City on October 15 and 16 at the Missouri Hotel.

Dr. Carl F. Vohs, St. Louis, was a guest speaker at the meeting of the American Hospital Association in Atlantic City on September 14. He spoke on "The Group Hospital Service Plan."

The National Safety Congress will convene in Kansas City October 11 to 15. A special invitation has been extended to physicians to attend and take part in the session which will include discussions of forty different phases of safety council work. The congress furnishes statistics showing that accidents ranked third in causes of death in this country in 1934 and in 1935 there were 100,000 deaths due to accidents and 9,340,000 injuries. This approximates eleven deaths and eleven hundred accidents every hour during the year.

The State Board of Health of Missouri has available "Physicians Birth Memorandum" booklets which are easily carried in a handbag and are useful for making bedside notes for filling out birth certificates. Also available are booklets, "Physicians Pocket Reference to the International List of Causes of Death," which contain not only the list of causes of death but undesirable terms. Both booklets are available to physicians by individual request to Dr. Harry F. Parker, State Health Commissioner, Jefferson City.

Chairmen of committees of the Association have been invited to attend a meeting of the Fifth Councilor District to be held at Columbia on October 21. Dr. M. Pinson Neal, Columbia, Chairman of the Council, has suggested that chairmen call meetings of their committees for that date at Columbia. He will arrange for a place of meeting for any committee requesting him to do so. Dr. Neal has requested that committee chairmen submit any matters they wish to have placed before the November Council meeting to the Chairman of the Council by October 27.

Dr. Irvin Abel, Louisville, Kentucky, President-Elect of the American Medical Association and Clinical Professor of Surgery at the University of Louisville School of Medicine, will be a guest of the Fifth Councilor District at Columbia, October 21. Dr. Abel will present an address on "The Retrodisplacements and Complete Prolapse of the Uterus."

The Association of Military Surgeons will convene in Los Angeles October 14 to 16 at the Ambassador Hotel. An unusually interesting program has been prepared and the scientific and technical exhibits will be the largest in the history of the organization. Physicians, surgeons, dentists and veterinarians of the Army, Navy, Marine Corps, CCC Camps and the Veterans Administration will be present. For additional information write Robert L. Lewin, Ambassador Hotel, Los Angeles.

"Your Health" will return to the air on October 13, sponsored by the American Medical Association and the National Broadcasting Company. The weekly presentations will be dramatized health messages planned principally as graphic supplementary material for health teaching in junior and senior high schools and the higher grades. The programs will be available to broadcasting stations of the Red network each Wednesday at 1 o'clock Central Standard Time. Stations in Missouri to which the program is available are KSD, St. Louis; WDAF, Kansas City, and KGBX, Springfield, the latter the only station in Missouri which has scheduled the program. This is the fifth year such broadcasts have been available. The first two years were devoted to health talks and the last two to dramatized health messages.

The Board of Managers of the State Cancer Hospital has been appointed by Governor Stark as follows: Dr. Ellis Fischel, St. Louis, Chairman; Mr. Ed. F. Swinney, Kansas City; Mr. Waldo Hold, Louisiana, and Dr. Paul F. Cole, Springfield. An advisory board was appointed as follows: Drs. M. B. Clopton, St. Louis; Ferdinand Helwig, Kansas City; Dudley S. Conley, Columbia; J. G. Christy, Festus; Mrs. David S. Long, Harrisonville; Senator A. M. Clark, Richmond; Mr. Hugh Stephens, Jefferson City; Bishop William Scarlett, St. Louis, and Bishop C. H. Leblond, St. Joseph. The hospital was authorized by an act of the last session of the Legislature. There was an appropriation of \$600,000 for the institution. Among cities desiring location of the hospital are Columbia, Moberly, Jefferson City, Macon, Mexico and Chillicothe.

Four new members to the State Board of Pharmacy were announced by Governor Stark on August 31 as follow: Mr. John L. Watkins, Kansas City; Mr. Charles R. Bohrer, West Plains; Mr. William H. Harper, Maplewood, and Mr. Perry Clark, Chillicothe. Mr. W. H. Ellis, Vandalia, was retained as president of the board. The Governor announced in June, after the disclosure of cheating at examinations conducted in St. Louis on April 26 and 27, that new appointments would be made. An advisory board was appointed as follows: Maurice D. Brummall, Salisbury; John J. Mueller, St. Louis; James E. O'Rourke, Joplin; Abe Fichman, St. Joseph; Joe Knight, Lebanon, and Byron F. Dormeyer, Cape Girardeau. Appointments were made on recommendations requested by the Governor of the Missouri State Medical Association, the Missouri State Pharmaceutical Association, the Kansas City and St. Louis colleges of pharmacy. The Board has been restored to good standing on the list of the National Association of Boards of Pharmacy after being removed in August.

The United States Civil Service Commission announces an open competitive examination for the position of associate medical officer in the following branches: Cardiology; cancer, diagnosis and treatment; eye, ear, nose and throat; urology; internal medicine and diagnosis; neuropsychiatry; pathology and bacteriology; roentgenology; general, chest or orthopedic surgery; tuberculosis; venereal disease, clinical or public health; industrial medicine, general or gas analysis or toxic dust, and general practice. Competitors will not be required to report for examination at any place but will be rated on their education and experience on a scale of 100, such ratings being based upon competitors' sworn statements in their applications and upon corroborative evidence. Applicants must be citizens of the United States and must have been graduated from a class A medical school not more than seven years prior to May 1, 1937. They must have had one year of internship or one year of internship in the optional branch claimed or one year of internship (general) and in addition one year of practice in the optional branch claimed, privately or in some recognized hospital. They must be less than 35 years of age. Applications must be on file with the United States Civil Service Commission at Washington, D. C., not later than October 18, 1937. Application forms may be obtained from the Secretary, Board of United States Civil Service Examiners at any first class post office, from the United States Civil Service Commission, Washington, D. C., or from the United

States Civil Service District office, New Federal Building, St. Louis.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Abbott Laboratories

Ampoules Caffeine with Sodium Benzoate, 2 cc.

American Research Products (Division of General Mills, Inc.)

Viosterol (A. R. P. I. Process) in Oil

Armour & Co.

Suprarenalin 1:100 for Oral Administration

Lederle Laboratories

Cevitamic Acid-Lederle

Tablets Cevitamic Acid-Lederle, 0.01 Gm.

Tablets Cevitamic Acid-Lederle, 0.05 Gm.

Eli Lilly & Co.

Sulfanilamide-Lilly

Sulfanilamide Tablets, 5 grains

Pure Carbonic, Inc.

"Pureco" Carbonic Acid Gas

E. R. Squibb & Sons

Antipneumococcic Serum, Type I, 10,000 units

Antipneumococcic Serum, Type I, 20,000 units

Colorado physicians are being confronted by a possibility of the nullification of the Basic Science Law which became effective in Colorado on July 1, 1937. A petition is being circulated to initiate an amendment to the constitution of the State of Colorado which, if adopted, would repeal many of the public health laws, destroy the Basic Science Law and open every hospital and all insurance and compensation practice to every practitioner of a healing cult. The amendment will appear on the general election ballot in November, 1938, if sufficient signers are obtained and in six weeks' time more than half the required number were obtained. The proposed amendment reads:

Be it enacted by the people of the State of Colorado:

The Constitution of the State of Colorado is hereby amended to include therein the following article:

Section 1. No person shall be denied the exclusive right to choose his own state licensed system of healing and doctor for state required examinations, or for therapeutic services in connection with state compensation or other insurance benefits, nor to choose his own state licensed system of healing and to have such service rendered him while an inmate, patient or charge of tax-supported or partially tax-supported corrective, therapeutic, eleemosynary or other public institution in the state.

Section 2. No profession recognized by the state shall be denied the exclusive right to examine, license

and regulate the practice of its own members through its own legally constituted board of authority.

Section 3. This amendment shall be self-executing and the general assembly shall enact such regulatory measures as are necessary to carry out its purposes.

Copies of the petition and amendment were submitted by the Board of Trustees of the Colorado State Medical Society to a law firm in Denver for their study and opinion on the changes it would bring in the present statutes. The statutes which the attorneys stated would be changed or nullified deal with the basic science act, the medical practice act, lunatics and other mental defectives, labor and state compensation, public health, blindness in newly born, blind, deaf and mute persons, children, civil service, dentistry, administrative code, hotels and restaurants and public welfare. The Colorado State Medical Society placed all the details of the situation before its members in the last issue of its publication, *Colorado Medicine*.

MISCELLANY

GONORRHEA

The Missouri Social Hygiene Association prepared a series of articles on various phases of gonorrhea. These articles appeared in the *Bulletin* of the St. Louis Medical Society and were reprinted that the members throughout the state might have the opportunity of reading them. This is the last article of the series.

Conference on Venereal Disease Control

In closing this series of brief articles on syphilis and gonorrhea, the Missouri Social Hygiene Association wishes to call attention to the different point of view toward the venereal disease problem which has been developing in the minds of the profession and the laity during the last year. Very earnest efforts are being made to take the patient out of the hands of charlatanism and exploitation and give him the benefit of the best scientific skill which his physician can offer. The Conference on Venereal Disease Control Work held last December represents the most concerted effort ever made in this country to accomplish this end.

It was brought out at the Conference that a minimum of 681,000 new cases of syphilis occur every year and that the prevalence in the population as a whole is between 5 and 10 per cent, the latter figures including all stages of the disease. The estimate of new cases of gonorrhea annually was 1,037,000.*

The section on public health control declared that whenever possible the patient with venereal disease should be treated by the family physician as in the case of any other disease, and that the personal relationship of the patient to the physician should by all means be maintained. It was also the opinion of this section that the reporting of venereal diseases to the health authorities was an absolute necessity as a control measure and it was stated that where practicable this report should be by name and address. It was recognized that conditions vary in different sections of the United States, that in some sections education both of the

* It was realized that the incidence is even greater than the figures would indicate.

physicians and the public had not progressed to a point where reporting by name and address was a practicable measure and that in such localities reporting by number and date of birth might be, for the time being, more feasible.

The section on the treatment of venereal diseases stressed the importance of intensive treatment in the control of early syphilis. The great superiority of the continuous treatment over the intermittent treatment, recently proven by the Cooperative Clinical Group, was emphatically affirmed. Other subjects discussed were the standardization of antisyphilitic drugs, administrative methods in the control of clinics, and, of greatest importance, the treatment of the syphilitic mother in the control of congenital syphilis.

The section on the cooperation of the private physician discussed the dual responsibility of physicians in cases of venereal disease, their responsibility to the patient and to the community. Responsibility to the patient requires the ability to provide him with recognized adequate treatment; responsibility to the community consists in preventing the infection of other individuals. It was the consensus of opinion that syphilis and gonorrhea must be regarded as any other highly infectious disease. This section also discussed the reporting of venereal diseases to the health authorities and advised that convenient and simple forms for reporting should be provided, these forms to be postage-free. Extremely careful precautions for the protection of these confidential records were recommended.

Education of medical students was thoroughly discussed and many expressed the opinion that more time should be given to the teaching of venereal disease in all of its phases. This question, however, was referred to the Council on Medical Education of the American Medical Association and to the Association of American Medical Colleges for further study as it was recognized that the crowded curriculum of the medical schools was a factor to be considered.

OBITUARY

FLETCHER BURR TAYLOR, M.D.

Dr. Fletcher Burr Taylor, Kansas City, died at St. Luke's Hospital, July 13, after an illness of several months.

Dr. Taylor was born at DeSoto, Kansas, the son of Mr. and Mrs. Mont Rose Taylor. He was graduated from Central high school in Kansas City and from the University of Kansas in 1908, where he was a member of the Sigma Alpha Epsilon fraternity. After his graduation from Kansas University he was an intern at the General Hospital and for five years was associated with the late Dr. C. K. Loyd. On September 8, 1917, he was married to Miss Virginia Barnes of Leavenworth.

During the World War, Dr. Taylor entered the service and was assigned to duty at Ft. Leavenworth, going to France with the air corps in January, 1919. After two years of service he took postgraduate work in urology in New York and at Johns Hopkins University in Baltimore, returning to Kansas City where he has practiced for the last seventeen years. Dr. Taylor was on the staff at St. Luke's, Research Hospital, General Hospital and the West Side health clinic.

The intimate friends of Fletcher Taylor will continue to reminisce on the fact that they knew him, which was to respect and admire him. He was equipped with a frail body but an analytical mind, and became a philosopher, scientist and naturalist. He was differ-

ent and individualistic in this age of regimentation and could intelligently discuss music, art, literature and wild life with a fascinating interest. Dr. Taylor had a philosophy, largely of his own creation, which was convincing and satisfying to himself.

He gave many years of his life to serving the sick poor at the General Hospital, and his passing leaves an aching void in the hearts of many hundreds whom he has served. He was particularly adapted to research work and teaching.

He was always an intellectual highlight at any professional or social gathering.

He was a born fighter—even when he knew the answer that only a few more hours were left he laughed at the idea of an impending tragedy.

If his biographer were allowed just one word to describe Dr. Taylor, he would say that he was sympathetic; if two words were permitted, he would say that he was both sympathetic and generous. He loved life, friends and home. The finest compliment that can be paid Dr. Taylor is to say that he was a man, which requirement he generously fulfilled.

The commercial side of medicine received no consideration in his practice. His services were rendered to the rich and the poor alike, but his charity patients probably received his most generous effort. He and his kind are always missed!

He is survived by his widow; a son, Fletcher Barnes Taylor, and a daughter, Babette Taylor, all of the home; his mother, Mrs. Alice Jane Taylor, and a sister, Mrs. Eugene Maschal, of Salina, Kansas.—From the Jackson County Medical Society Weekly Bulletin.

HENRIETTA A. STOFFREGEN BORCK, M.D.

Dr. Henrietta A. S. Borck, St. Louis, a graduate of the Woman's Medical College, St. Louis, 1894, and the Homeopathic Medical College of Missouri, St. Louis, 1897, died of a heart attack at her office-home on July 24, aged 68. Death occurred a few moments after she had attended a patient.

Dr. Borck was born in Emden, Germany. After coming to the United States she worked in the private hospital of the late Dr. Edward Borck in St. Louis. Becoming interested in medicine she studied nursing and then medicine. She was married to Dr. Edward Borck in 1898 and shared offices with her husband until his death in 1912. Dr. Borck first met Dr. Edward Borck when he attended an international medical congress in Berlin.

Dr. Borck became a member of the St. Louis Medical Society in 1913 and took an active part in the meetings of the Society often entering the discussion of papers. She assisted in the campaign for the erection of the Society's building. She served the Society as vice president in 1935.

WILLIAM PRESTON PATTERSON, M.D.

Dr. Wm. P. Patterson, Springfield, a graduate of Vanderbilt University, Nashville, 1885, died of heart disease on June 7, 1937, aged 76.

Dr. Patterson did postgraduate work at Bellevue Hospital in New York before beginning his practice at Brookline where he practiced until 1896 when he moved to Springfield. He was appointed coroner of Greene County in 1896 to fill an unexpired term. He was elected coroner in 1936 and his death occurred while on a call in connection with this office.

He served the Greene County Medical Society as censor for three years and had been president of the staff of the Springfield Baptist Hospital. He was al-

ways interested in charitable activities and was chairman of the underprivileged children's committee of the Kiwanis club when the first city park playground was established in 1922. He was a member of the official board of the South Street Christian Church, a Mason and a member of the Kiwanis Club.

He is survived by his widow, Mrs. May B. Patterson, three daughters and two brothers.

WM. R. BEATIE, M.D., and
MURRY C. STONE, M.D.,
Committee.

DOUGLAS HORD KOUNS, M.D.

Dr. Douglas H. Kouns, Tuscumbia, was born in Fulton on October 31, 1860, the son of Clarence F. and Hester Ann Kouns. He was the oldest in a family of eleven children. Only three brothers and one sister of this group are now living.

He attended Westminster College at Fulton and later received his medical degree at the Kentucky School of Medicine, Louisville, being a member of the class of 1883. He began the practice of his chosen profession at old Linn Creek in Camden County, Missouri, in August of the same year.

He was married to Miss Lena Belle Churchill who survives him on May 24, 1887, at Linn Creek. To this union eight children were born, six of whom survive. There are seven grandchildren.

In March of 1890 he moved to Tuscumbia where he actively continued his practice until his fatal illness. He had completed fifty-four years of continuous service to his fellow man.

He was always an active member of the Miller County Medical Society being a charter member of the Society. He had been in continuous practice longer than any physician in Miller County and continued practice until three days before his death, on that day administering to a patient who called at his home. He died on June 20 at his home in Tuscumbia in his 77th year, just four weeks after the celebration of his golden wedding anniversary.

Books for Leisure Moments

The pornographic literature of an earlier day gradually is being replaced by a new type of sex book. Instead of being advertised by circular to the "medical and allied professions" with the strict injunction that the occupation must be stated on all orders, this new type of book is advertised through conventional channels. It does not promise lurid pictures of oriental orgies nor does it seek to take advantage of the reader's instinctive interest in this deep-seated biologic urge. Recently we reviewed in these columns "On Guard," a volume which takes it for granted that men will be exposed to the risk of venereal infection, that it is far better to inform them sanely and sensibly that they might prevent disease than it is to offer them a preachment which they could not help but disregard. "Sexual Power" (Appleton-Century) by Chester T. Stone of the Bellevue Urological staff may be thought of as a companion volume.

Assuming that the sexual urge is bound to give rise to many problems difficult of solution and made more difficult by the medieval mysticism which still permeates the subject, Stone writes that "many readers would not be in their present quandary if they had known the essentials of the sexual relationship. . . .

Since the sexual life enters into every phase of human emotion, thought and activity . . . it suffers sooner than any other element of life when troubles arise." He attempts to elucidate the natural sex function, to normalize it as a part of living, to make of it the vital force that it may be in meeting the vicissitudes of life. In this he does well.

Unfortunately, attracted perhaps by the drama of our present half formed notions of the endocrines, Stone includes a chapter in which he delineates the sexual effect of each gland. While such a departure from accepted scientific accomplishment may appeal to the lay reader, it serves to reintroduce the element of mysticism which has too long characterized our thought and attitude toward sex. This discordant note detracts from the general value of the book. Because the lay reader may experience a vicarious thrill the author is under great temptation not to explain variations in the sexual instinct on an endocrine basis. But because he set out to write a scientific presentation of what has hitherto been presented as pseudoscience, he is under strict obligation to refrain from again introducing the pseudoscientific.

On the whole this volume by Stone succeeds reasonably well in rationalizing the vagaries of the sexual instinct. It may be recommended to patients with the reservations noted above.

B. Y. G.

Andrea Majocchi takes pen in hand to prepare his autobiography, *Life and Death* (Knight Publications, New York). It is an undistinguished bit of writing, enlivened neither by appealing literary style nor exciting narration. Yet it has already gone through five printings.

His physician father died of septicemia, contracted in the performance of duty at an autopsy. At the time he entreated his wife to let three year old Andrea become a peasant rather than a physician. With the precociousness to which we have become accustomed in these autobiographical accounts Andrea sailed through school on scholarships, turned to medicine because he had no liking for mathematics and because the law would not offer him the chance to earn an immediate living after he had won his sheepskin. At first he was an obstetrician, running on all kinds of emergency calls in the poorer quarters of Milan wherever and whenever the midwife called. He went into circus tents and houses of prostitution to perform his miracles of healing. Finally he turned toward surgery and is now, the publishers assure us, Italy's leading surgeon, a plaudit earned when the poet, D'Annunzio, described his scalpel as miracle working.

Majocchi was not impressed with the machine like methods of the American hospitals and operating rooms which he visited. He objects to the lack of personal attention given the patient by the operating surgeon. But he is full of praise for the American nurse, the creation of opulence. Nursing has not advanced far in Italy because there are neither the facilities for training nor the money for pay once the nurse has been trained. Only now an occasional hospital has begun a sort of training school. But Red Cross nurses are Angels of Mercy, invaluable on account of their sweet forbearance in succoring the wounded and maimed of the Great War.

As autobiography the book is not without merit in that it tells the story of a man. But it lacks the appeal, the substance, the human touch which characterizes such biographies as those of Adolph Lorenz ("My Life and Work"), and Rosalie Slaughter Morton ("Woman Surgeon").

B. Y. G.

COUNCILOR DISTRICT AND SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November
27, 1936.
Chariton County Medical Society, Decem-
ber 1, 1936.
Ste. Genevieve County Medical Society,
December 15, 1936.
Dent County Medical Society, January 8,
1937.
Lincoln County Medical Society, February
16, 1937.
Benton County Medical Society, February
26, 1937.
Moniteau County Medical Society, March
29, 1937.
Barry County Medical Society, May 14,
1937.
Camden County Medical Society, May 14,
1937.
Morgan County Medical Society, May 14,
1937.

ASSOCIATE EDITORS: COUNCILORS OF
THE TEN COUNCILOR DISTRICTS

FIRST COUNCILOR DISTRICT

A. S. BRISTOW, PRINCETON, COUNCILOR

On September 24 was given the last of a series of eight lectures which constitute the Refresher Course in Obstetrics that has been conducted throughout the First Councilor District the last two months by Dr. Paul F. Fletcher, St. Louis. It was my privilege to have attended these lectures at different cities in which they were given. Attendance was good, intense interest was manifested and comments on the able manner in which Dr. Fletcher conducted this course of study were numerous. We greatly appreciate his aid, advice and untiring efforts and regret to chronicle the completion of the course. May we have more of them.

I wish to call the attention of the members to the excellent clinical programs which have been arranged for our attendance by the St. Joseph Clinical Society within our own District, and also our near neighbor, the Jackson County Medical Society. The St. Joseph Society has always furnished an interesting spring program but in addition they now have arranged for extra one day clinical sessions to be held at various times. The first of these was held September 21, the program being presented by local and guest speakers. In addition to this, we have the annual fall clinical conference of the Kansas City Southwest Clinical Society to be held in Kansas City October 4 to 7. These programs represent a large amount of effort on the part

of the various societies along with an intelligent selection of the subjects presented. They certainly merit your attendance.

I am gratified at the increasing amount of interest manifested in consideration of our many medical problems, both by attendance at county society meetings and through the many letters I have received. I would ask that each secretary study the list of eligible practitioners in his county, that all may be urged to attend these meetings. It is only through their increasing interest and understanding that we shall be able to reach our goal, that of every eligible practitioner in the First District to become a member of the State Medical Association in 1938.

Atchison County Medical Society

The Atchison County Medical Society met in Rockport, August 18, at 8 p. m. Dr. J. A. Gray, Watson, president of the Society presided.

The purpose of this meeting was to hear a discussion of the pertinent facts concerning some of our most pressing problems presented by Dr. A. S. Bristow, Princeton, Councilor of the First District, and to consider the proposition of care of the Resettlement clients. Dr. Bristow's talk was interesting and instructive and the Society extended a vote of thanks to Dr. Bristow.

The Society adjourned to meet at Tarkio on August 27 for a business session.

WM. R. STRICKLAND, M.D., Secretary.

FOURTH COUNCILOR DISTRICT

R. B. DENNY, CREVE COEUR, COUNCILOR

St. Louis County Medical Society

The St. Louis County Medical Society met September 8 at 2:50 p. m.

Dr. Norman Tobias, St. Louis, read a paper on "The Eczema Problem." He classified eczema as seborrheic, varicose and contact, atopic dermatophytosis, infectious, eczematoid and exfoliative and discussed the treatment of each variety. He also pointed out the factors of autosensitization and polysensitization and their relation to other diseases. The paper was discussed by Drs. John D. Hayward and C. P. Dyer, St. Louis, and O. N. Schudde, Ferguson.

Dr. Curtis H. Lohr, St. Louis, spoke in defense of mercurochrome.

Dr. R. B. Denny, Creve Coeur, proposed a rising vote of thanks to Dr. Tobias.

Dr. C. P. Dyer, St. Louis, invited the interns to attend the meetings regularly and encouraged membership among the intern staff. Dr. R. B. Denny, Creve Coeur, emphasized the necessity of increasing the membership in view of the impending social changes in the profession.

Dr. C. P. Dyer and Dr. M. T. Morrison, St. Louis, related vacation experiences.

Dr. Curtis H. Lohr, St. Louis, thanked the Society for its support in the boat trip and the county bond issue and explained further plans regarding the encephalitis epidemic.

J. JENSEN, M.D., Secretary.

FIFTH COUNCILOR DISTRICT

M. PINSON NEAL, COLUMBIA, COUNCILOR

The Program Committee of the Boone County Medical Society, with the Councilor of this District, an-

nounce a program of great interest and much importance for the first annual fall meeting of the Fifth Councilor District, to be held in Columbia at the Country Club, October 21. This meeting is planned similar to those that have been popular annual affairs in the old Ninth Councilor District under the leadership of Dr. A. R. McComas, Surgeon. The program for the coming meeting will begin at 2:00 p. m. with the following subjects and speakers:

PROGRAM

"Roentgen Therapy in Inflammations," David V. LeMone, M.D., Columbia, Instructor in Roentgenology, University of Missouri School of Medicine.

"The Indications for Birth Control Practice," Ralph R. Wilson, M.D., Kansas City, Associate in Obstetrics and Gynecology, University of Kansas School of Medicine; Chairman, Maternal Welfare Committee, Missouri State Medical Association. Discussion by Quitman U. Newell, M.D., St. Louis, Associate Professor of Clinical Obstetrics and Gynecology, Washington University School of Medicine.

"Congenital Pyloric Stenosis," Dudley A. Robnett, M.D., Columbia, Associate Professor of Pathology, University of Missouri School of Medicine.

"The Retrodisplacements and Complete Prolapse of the Uterus," (lantern slides), Irvin Abell, M.D., Louisville, Kentucky, Clinical Professor of Surgery, University of Louisville School of Medicine; President-Elect, American Medical Association.

Following the scientific program a social hour for relaxation and fraternalism will precede an informal dinner. After the dinner there will be messages from our special guest, Dr. Irvin Abell, representing the American Medical Association, and from a native of Boone County, Dr. Dudley S. Conley, Columbia, President of the Missouri State Medical Association and Dean of the School of Medicine, University of Missouri, and an entertaining address by Mr. Robert L. Finch, Vice President of the Cardinal Baseball Club, St. Louis.

The officers, members of the Council, the members of all standing and special committees of the State Medical Association and members of the county societies in the Fifth Councilor District are invited, and if need be urged, to attend this meeting. All of you please make plans now toward that end.

The Chairman of the Council suggests that the chairmen of the various committees of the State Medical Association can conveniently call and hold committee meetings at Columbia on that day. If meeting places are desired for such he will gladly, upon request, make room reservations. It is desired that all committees having matters to present to the Council at its regular November meeting will get this material in shape and in the hands of the Chairman of the Council not later than October 27, in order that such may be incorporated in the agenda for action at the designated November meeting.

Boone County Medical Society

The Boone County Medical Society for its monthly meeting, Tuesday, October 5, at 8 p. m., will feature the sound film, "Syphilis," as shown at the Atlantic City meeting of the American Medical Association in June of this year. Members of neighboring county medical societies are invited to view this movie film which is one of the outstanding developments in medical education. The place of the meeting will be announced later to the secretaries of the county societies neighbor to Boone County.

SIXTH COUNCILOR DISTRICT

A. J. CAMPBELL, SEDALIA, COUNCILOR

Cass County Medical Society

The Cass County Medical Society met at the office of Dr. J. E. Wensley, Harrisonville, at 8 p. m., September 16, Dr. B. B. Tout, Archie, presiding.

The application of Dr. J. E. Wensley was read. Dr. Wensley, a member of the Jackson County Medical Society, located at Harrisonville on July 1, 1937. The Society extended the privilege of membership to him pending the receipt of his transfer card from the Jackson County Medical Society.

After a discussion of a place of meeting, Dr. David S. Long, Harrisonville, moved that meetings be held at Harrisonville, except, upon invitation the Society votes to meet at some other designated place. The motion was seconded and carried. Dr. J. E. Wensley offered the use of his office as a meeting place for which the Society thanked him.

Communications to the Society were read from the late Dr. M. P. Overholser; Dr. E. J. Goodwin, Secretary-Editor, and Dr. H. L. Kerr, Crane, member of the Committee on Membership of the State Association.

The county health office and its administration in Cass County was discussed by several members. The president was instructed to appoint a committee to confer with the Cass County Court for the purpose of formulating a more satisfactory plan for furnishing medical service to the indigent sick, than is now in operation. The president appointed Drs. David S. Long, Harrisonville; R. M. Miller, Belton, and B. O. Hartwell, Drexel, to serve on the committee.

Dr. Wm. Beckman, Strasburg, read a paper on "Trigeminal Neuralgia." In discussing this paper Dr. G. Wilse Robinson, Sr., Kansas City, demonstrated on a skull his technic of injecting the involved nerves in this painful affection.

Dr. L. J. Schofield, Warrensburg, read an interesting and well prepared paper on "The Doctor in Literature."

Dr. G. Wilse Robinson, Sr., Kansas City, delivered an instructive address on "The Problems of Mental Health."

The Society extended a vote of thanks to the speakers for their part in making this a successful and profitable session.

Members present were Drs. T. W. Adair and B. B. Tout, Archie; Wm. Beckman, Strasburg; David S. Long, J. S. Triplett and J. E. Wensley, Harrisonville; R. M. Miller, Belton, and L. V. Murray, Pleasant Hill. Visitors were Drs. G. Wilse Robinson, Sr., Kansas City; L. J. Schofield, Warrensburg, and M. V. Robbins, Peculiar.

J. S. TRIPLETT, M.D., Secretary.

SEVENTH COUNCILOR DISTRICT

E. P. HELLER, KANSAS CITY, COUNCILOR

Tuesdays, beginning September 14 and continuing through the fall and winter months, will be active and instructive days for the local and visiting participants if a program planned by the program and education committees of the Jackson County Medical Society receives the support it deserves. From 9 a. m. to 9:30 p. m. ward walks, pathological conferences, wet and dry clinics, lectures and demonstrations have been planned which should appeal to men in every field of medical science. The two committees (program and education) have been active during the present year and have one common purpose, i. e., utilizing to better

advantage the wealth of clinical material so readily available in Kansas City. With the Society's auditorium in a wing of the General Hospital, adjacent to nearly 800 charity beds on Hospital Hill, one could ask for nothing more propitious. The programs have been planned so that physicians within a radius of a hundred miles may easily attend and lose only the one day each week from their practices.

Some idea of the scope of the undertaking may be had from the following list of instructors and the subjects to be covered:

1. G. Leonard Harrington, psychoanalysis, to commence September 14, 3 to 5 p. m., to continue for six weeks.
2. William M. Ketcham, endocrinology.
3. Ralph H. Major, diabetes.
4. Paul F. Stookey, immunology.
5. George C. Lee and A. Graham Asher, electrocardiography.
6. Ira H. Lockwood and Edward H. Skinner, roentgenographic interpretation.
7. Peter T. Bohan and James H. Dangle, physical diagnosis.
8. Members of the Kansas City Bar Association, legal medicine, a discussion of medical problems involved in litigation. Date of course will be announced later.
9. Grace Kerby, bacteriology.
10. C. G. Leitch and R. W. Kerr, postmortem examinations.
11. James C. Rice, clinical chemistry.
12. C. G. Leitch, hematology and interpretation of laboratory findings.
13. Ralph E. Duncan, recent advances in laboratory diagnosis.

14. R. W. Kerr, urinalysis.
15. Ferdinand C. Helwig, tumors.
16. Professor Albert H. Johnstone, director of medical speakers bureau.

The Medical Business Bureau was organized as a unit of the Jackson County Medical Society to provide for its members a centralized service for investigating and collecting delinquent accounts, for assembling the medical credit record of persons in this district and to develop new facilities for the solution of medical economic problems. Plans for such a service have been considered for some time but actual operation has been delayed. Collection difficulties and a lack of information on persons abusing medical credit made it imperative that the Society take this forward step for the protection of members and to improve the collectibility of their accounts by directing friendly collection methods with the assurance of prompt remittances for any accounts collected by the Bureau and by extending credit only to persons who are favorable credit risks. A splendid response is being received from the members of the Society and since the success of a business bureau is contingent on the cooperation of the members and their use of the bureau, doubtless the Medical Business Bureau will become a valuable asset to the Society and supply the members of the Society with a service that has long been needed.

Mr. W. H. Bartelson, Manager of the new Business Bureau, is well established in credit circles in the community and a man whom we were fortunate in being able to procure. He is working in close harmony with the new executive secretary, Mr. F. K. Helsby.

INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION OF NORTH AMERICA

St. Louis, October 18 to 22, 1937

Pre-assembly Clinics, October 16; Post-assembly Clinics, October 23,
St. Louis Hospitals

Program

Monday, October 18—8:00 a. m.

Diagnostic Clinic: "Cosmetic Results in the Treatment of Cancerous Skin Lesions."

Dr. Joseph Eller, Professor of Clinical Dermatology and Syphilology, New York Postgraduate Medical School, Columbia University, New York, New York.

Diagnostic Clinic: "Hypertensive Heart Disease, Manifestations, Diagnosis, Treatment."

Dr. Fred M. Smith, Professor of Theory and Practice of Medicine, State University of Iowa College of Medicine, Iowa City, Iowa.

Diagnostic Clinic: "Deficiency Diseases."

Dr. Russell L. Haden, Chief of Medical Division, Cleveland Clinic, Cleveland, Ohio.

Intermission to Review Exhibits

Diagnostic Clinic: "The Symptoms and Treatment of Injuries of the Spinal Cord."

Dr. Loyal Davis, Professor of Surgery, Northwestern University School of Medicine, Chicago, Illinois.

Diagnostic Clinic: "Types of Obesity and Their Treatment."

Dr. Reginald Fitz, Associate Professor of Medicine, Boston University Medical School, Boston, Massachusetts.

Noon Intermission

1:00 p. m.

Diagnostic Clinic: "Surgical Treatment of Peptic Ulcer."

Dr. Donald C. Balfour, Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

Address: "Ulcerative Colitis and Its Surgical Management."

Dr. Richard B. Cattell, Lahey Clinic, Boston, Massachusetts.

Address: "The Roentgen Treatment of Infections."

Dr. Frederick M. Hodges, Professor of Clinical Radiology, Medical College of Virginia, Richmond, Virginia.

Intermission to Review Exhibits

Address: "Meningitis Secondary to Disease of the Bones of the Skull."

Dr. Wells P. Eagleton, Newark, New Jersey.

Address: "The Treatment of Urinary Infections in Infants and Children."

Dr. John R. Caulk, Professor of Clinical Genito-Urinary Surgery, Washington University School of Medicine, St. Louis, Missouri.

Address: "Prenatal Care."

Dr. Otto H. Schwarz, Professor of Obstetrics and Gynecology, Washington University School of Medicine, St. Louis, Missouri.

Address: "Granulomatous Lesions of the Intestines."

Dr. Claude F. Dixon, Assistant Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

Dinner Intermission

7:00 p. m.

Address: "Recent Advances in the Field of Abdominal Surgery."

Mr. W. Hugh Cowie Romanis, F.R.C.S., Surgeon to St. Thomas Hospital, London, England.

Address: "The Influence of Drugs Upon the Physiology of the Failing Heart."

Dr. Maurice B. Visscher, Professor of Physiology and Head of the Department, University of Minnesota Medical School, Minneapolis, Minnesota.

Address: "The Mechanism and Treatment of Congestive Heart Failure."

Dr. Tinsley R. Harrison, Associate Professor of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee.

Address: "The Diagnostic Significance of Abdominal Pain."

Dr. Frederick J. Kalteyer, Clinical Professor of Medicine, Jefferson Medical College, Philadelphia, Pennsylvania.

Address: "Carcinoma of the Stomach."

Dr. Waltman Walters, Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic, Rochester, Minnesota.

Address: "Chronic Prostatitis."

Dr. Cyrus E. Burford, Professor of Urology, St. Louis University School of Medicine, St. Louis, Missouri.

Tuesday, October 19

8:00 a. m.

Diagnostic Clinic: "The Effects of General Infection on the Nervous System of Children."

Dr. Bronson Crothers, Assistant Professor of Pediatrics, Harvard University Medical School, Boston, Massachusetts.

Diagnostic Clinic: "Spastic Paralysis."

Dr. Alan deForest Smith, Clinical Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons, New York, New York.

Diagnostic Clinic: (Subject to be supplied).

Dr. Dean D. Lewis, Professor of Surgery, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Intermission to Review Exhibits

Diagnostic Clinic: "Pitfalls in the Diagnosis of Acute Abdominal Conditions."

Dr. Alton Ochsner, Professor of Surgery, Tulane University of Louisiana School of Medicine, New Orleans, Louisiana.

Diagnostic Clinic: "Various Types of Edema and Their Treatment."

Dr. David P. Barr, Busch Professor of Medicine, Washington University School of Medicine, St. Louis, Missouri.

Noon Intermission

1:00 p. m.

Diagnostic Clinic: "The Management of Compound Fractures of the Extremities."

Dr. John J. Moorhead, Professor of Clinical Surgery, New York Postgraduate Medical School, Columbia University, New York, New York.

Address: "Migraine."

Dr. Thomas Cecil Hunt, St. Mary's Hospital, London, England.

Address: "Cicatrizing Enteritis—A Neglected Clinical Entity."

Dr. Elliott C. Cutler, Moseley Professor of Surgery, Harvard University Medical School, Boston, Massachusetts.

Intermission to Review Exhibits

Address: "The Problem of Ocular Tuberculosis." The Joseph Schneider Foundation Presentation.

Dr. Alan C. Woods, Acting Professor of Ophthalmology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Address: "Combined Abdomino-perineal Resection for Carcinoma of the Rectum."

Dr. Thomas E. Jones, Cleveland Clinic, Cleveland, Ohio.

Address: "Early Diagnosis and Treatment of Cancer of the Cervix."

Dr. John R. Fraser, Professor of Obstetrics and Gynecology, McGill University Faculty of Medicine, Montreal, Canada.

Address: (Subject to be assigned).

Dr. Marion L. Klinefelter, St. Louis, Missouri.

Dinner Intermission

7:00 p. m.

Address: "Growth Disturbances of the Pelvis and Femur Resulting from Diseases of the Hip Joint."

Dr. Dallas B. Phemister, Professor of Surgery, University of Illinois College of Medicine, Chicago, Illinois.

Address: "The Post Hoc Ergo Propter Hoc Fallacy in Medicine."

Dr. Robert D. Rudolf, Professor Emeritus of Therapeutics, University of Toronto Faculty of Medicine, Toronto, Canada.

Address: "Allergy as Related to the Otolaryngologist."

Dr. Harold G. Tobey, Boston, Massachusetts.

Address: "Newer Methods in the Medical Treatment of Peptic Ulcer."

Dr. Horace W. Soper, St. Louis, Missouri.

Address: "Subdural Hematoma."

Dr. Eric Oldberg, Professor of Neurology and Neurological Surgery, University of Illinois College of Medicine, Chicago, Ill.

Address: "Toxemias of Pregnancy."

Dr. Nicholson J. Eastman, Professor of Obstetrics, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Wednesday, October 20

8:00 a. m.

Diagnostic Clinic: "Hay Fever."

Dr. J. Harvey Black, Professor of Preventive Medicine, Baylor University College of Medicine, Dallas, Texas.

Diagnostic Clinic: "Newer Methods of Vascular Surgery."

Dr. Wayne Babcock, Professor of Surgery and Clinical Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania.

Diagnostic Clinic: "Bronchiectasis and Certain Phases of Tuberculosis."

Dr. Charles R. Austrian, Associate Professor of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Intermission to Review Exhibits

Diagnostic Clinic: "Dyspepsia, Organic Reflex and Functional."

Dr. Walter C. Alvarez, Professor of Medicine, University of Minnesota, The Mayo Foundation, Rochester, Minnesota.

Diagnostic Clinic: "Syphilis of the Central Nervous System."

Dr. Leon H. Cornwall, Associate Professor of Neurology, Columbia University College of Physicians and Surgeons, New York, New York.

Noon Intermission

1:00 p. m.

Diagnostic Clinic: "Abdominal Pain."

Dr. Irvin Abell, Clinical Professor of Surgery, University of Louisville School of Medicine, Louisville, Kentucky.

Address: "Drugs in the Treatment of Heart Disease."

Dr. Robert L. Levy, Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons, New York, New York.

Address: "Diagnosis and Treatment of Brain Abscess."

Dr. Walter E. Dandy, Adjunct Professor of Neurological Surgery, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Intermission to Review Exhibits

Address: "X-ray Treatment of the Pituitary Gland."

Dr. Merrill C. Sosman, Assistant Professor of Roentgenology, Harvard University Medical School, Boston, Massachusetts.

Address: "Water Balance in Surgical Patients With Special Reference to Pre- and Post-operative Management."

Dr. Frederick P. Coller, Professor of Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

Address: "Anxiety States in General Practice."

Dr. William J. Kerr, Professor of Medicine, University of California Medical School, San Francisco, California.

Assembly Dinner—For members of the profession, their ladies and friends.

Informal—7:00 p. m.

Dr. John F. Erdmann, Master of Ceremonies. Addresses by eminent members of the profession and other distinguished citizens of the world.

Thursday, October 21

8:00 a. m.

Diagnostic Clinic: "Cirrhosis of the Liver."

Dr. Charles A. Elliott, Professor of Medicine, Northwestern University School of Medicine, Chicago, Illinois.

Diagnostic Clinic: "Factors to be Considered in the Diagnosis of Diseases of the Genito-Urinary Tract."

Dr. William E. Lower, Cleveland Clinic, Cleveland, Ohio.

Diagnostic Clinic: "Nephritis."

Dr. Jonathon C. Meakins, Professor of Medicine, McGill University Faculty of Medicine, Montreal, Canada.

Intermission to Review Exhibits

Diagnostic Clinic: "Post-operative Fistulae With Special Reference to the Gall-Bladder."

Dr. John F. Erdmann, Attending Surgeon, New York Postgraduate Hospital and Medical School, Columbia University, New York, New York; President, Inter-State Post Graduate Medical Association.

Diagnostic Clinic: "The Relation of Diabetes to Arteriosclerosis."

Dr. Elliott P. Joslin, Clinical Professor of Medicine, Harvard University Medical School, Boston, Massachusetts.

Noon Intermission

1:00 p. m.

Address: "A New Approach to the Treatment of Peptic Ulcer."

Mr. Wilson Hey, F.R.C.S., Surgeon, Manchester Royal Infirmary, Manchester, England.

Address: "The Present Status of Studies on the Thymus."

Dr. Leonard G. Rowntree, Director, Philadelphia Institute for Medical Research, Philadelphia, Pennsylvania.

Address: "The Adherent Posterior Duodenal Ulcer."

Dr. J. William Hinton, Associate Professor of Clinical Surgery, New York Postgraduate Medical School, Columbia University, New York, New York.

Address: "The Prevention and Treatment of the Exanthemata."

Dr. John A. Toomey, Associate Professor of Pediatrics, Western Reserve University School of Medicine, Cleveland, Ohio.

Intermission to Review Exhibits

Address: "High Saphenous Ligations Plus Injection for Varicose Veins of the Leg."

Dr. William D. Haggard, Professor of Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee.

Address: "Endocarditis."

Dr. Ralph A. Kinsella, Professor of Internal Medicine, St. Louis University School of Medicine, St. Louis, Missouri.

Address: "Recent Advances in Hormone Therapy as Applied to Gynecological Problems."

Dr. Emil Novak, Associate in Gynecology, Johns Hopkins University School of Medicine; Associate Professor of Obstetrics, University of Maryland School of Medicine, Baltimore, Maryland.

Dinner Intermission

7:00 p. m.

Address: "The Surgical Treatment of Diverticulitis."

Dr. Fred W. Rankin, Lexington, Kentucky.

Address: "Diagnosis and Treatment of Displacements of the Uterus."

Dr. William H. Vogt, Director of the Department of Gynecology and Obstetrics, St. Louis University School of Medicine, St. Louis, Missouri.

Address: "The Relation of the Development of the Child to the Endocrine System."

Dr. Charles R. Stockard, Professor of Anatomy, Cornell University Medical College, New York, New York.

Address: "Indications for Exploratory Laparotomy."

Dr. William T. Coughlin, Professor of Surgery, St. Louis University School of Medicine, St. Louis, Missouri.

Address: "Tumors of the Kidney."

Dr. Herman L. Kretschmer, Clinical Professor of Surgery, Rush Medical College, University of Chicago, Chicago, Illinois.

Friday, October 22

8:00 a. m.

Diagnostic Clinic: "Surgical Lesions of the Common and Hepatic Ducts."

Dr. Frank H. Lahey, Director of Surgery, Lahey Clinic; Surgeon to the New England Baptist Hospital and the New England Deaconess Hospital, Boston, Massachusetts.

Diagnostic Clinic: "The Diagnosis and Management of Cardiac Arrhythmias."

Dr. Roy W. Scott, Professor of Clinical Medicine, Western Reserve University School of Medicine, Cleveland, Ohio.

Diagnostic Clinic: "Chest Surgery."

Dr. Evarts A. Graham, Bixby Professor of Surgery, Washington University School of Medicine, St. Louis, Missouri.

Intermission to Review Exhibits

Diagnostic Clinic: "The Medical Treatment of Arthritis."

Dr. Cyrus C. Sturgis, Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan.

Diagnostic Clinic: "Diagnosis and Management of Diseases of the Thyroid Gland."

Dr. George Crile, Cleveland Clinic, Cleveland, Ohio.

Noon Intermission

1:00 p. m.

Address: "The Surgical Treatment of Arthritis."

Dr. Philip D. Wilson, Clinical Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons, New York, New York.

Address: "Diet of Infants."

Dr. Charles Hendee Smith, Professor of Pediatrics, University and Bellevue Hospital Medical College, New York, New York.

Address: "The Relation of the Pituitary, Thyroid, Adrenals, Liver, and Pancreas to Hyperinsulinism and Spontaneous Hypoglycemia."

Dr. Seale Harris, Professor Emeritus of Medicine, University of Alabama School of Medicine, Birmingham, Alabama.

Address: "Relief of Intractable Pains by Subarachnoid Alcohol Injections, Nerve Blocks, Root Sections, and Chorodotomy."

Dr. W. McK. Craig, Professor of Neurosurgery, University of Minnesota Graduate School of Medicine, Mayo Foundation, Rochester, Minnesota,

and
Dr. Alfred W. Adson, Professor of Neurosurgery, University of Minnesota Graduate School of Medicine; Senior Neurosurgeon of Mayo Clinic, Rochester, Minnesota.

Intermission to Review Exhibits

Address: "Diagnosis and Treatment of Pneumonia."

Dr. Russell L. Cecil, Professor of Internal Medicine, New York Polyclinic Medical School and Hospital, New York, New York.

Address: "The Significance of Hoarseness and Local Discomfort in Laryngeal Disease."

Dr. Gabriel Tucker, Professor of Clinical Bronchoscopy and Esophagoscopy, University of Pennsylvania School of Medicine and Professor of Bronchoscopy and Laryngeal Surgery, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

Address: "The Surgery of Hermaphroditism and Associated Adrenal Diseases."

Dr. Hugh H. Young, Professor of Urology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Address: "The Menace of Post-Operative Adhesions."

Dr. Fred W. Bailey, St. Louis, Missouri.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

16th Annual Meeting, San Francisco, 1938

President, Mrs. Augustus Kech, Altoona, Pennsylvania.

President-Elect, Mrs. Charles C. Tomlinson, Omaha, Nebraska.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.

President-Elect, Mrs. Herbert L. Mantz, Kansas City.

The October issue of the *Quarterly Bulletin* of the Auxiliary is a handbook outline and gives in brief the duties of the county officers and chairmen. This was prepared largely by the state president, Mrs. C. H. Werner, and she asks that the copies be saved. They were mailed to each member of the Auxiliary but if anyone failed to receive her copy she may obtain one by writing to the state publicity chairman.

The Missouri Auxiliary will sponsor its 6th annual essay contest this year. The rules of the contest, prepared by Mrs. Herbert L. Mantz, Kansas City, state essay chairman, follow: Each county is to appoint its own essay chairman and sponsor the essay contest in that county's high schools and offer its own prizes. All counties shall use the rules formulated by the state essay committee, submitting their winning essays in both junior and senior groups to the state essay chairman for entry in the state essay contest. Publicity should be arranged with local newspapers by each participating county, at both the beginning and end of the contest. An outline of subject matter, as well as list of suggested material will be mailed each county chairman.

Subject: What Can I Do to Prevent Contagion?

Contestants: (a) Junior high school students; (b) senior high school students.

Length of Essays: Junior high school, 750 to 1000 words; senior high school, 1500 to 2000 words.

Prizes: In addition to prizes given by county auxiliaries in their respective contest, the Woman's Auxiliary to the Missouri State Medical Association offers the following prizes: Senior high schools, 1st prize, \$10; 2nd prize, \$5. Junior high schools, 1st prize, \$10; 2nd prize, \$5.

Time: The contest will open October 1, 1937, and close March 1, 1938. Each county contest shall close no later than February 1, 1938, so that the essays receiving first prizes may be in the hands of the state essay chairman not later than March 1, 1938.

Identification: Each school shall choose its own code number (such as B-1) to mark each essay, and the name, address and school of the contestant shall not appear on the essay, the list of same being kept at the school.

Judges: Judges of the county contests shall be the president of the county auxiliary and two others appointed by her. Judges of the state contest shall be

Mrs. Chas. H. Werner, St. Joseph, and two others appointed by her.

The Committee is composed of Mrs. Herbert L. Mantz, Kansas City, Chairman; Mrs. Paul Cole, Springfield; Mrs. A. H. Home, and Mrs. E. E. Wadlow, St. Joseph.

On June 14, Flag Day, Mrs. H. S. Gove, Linn, president of the Cole County Auxiliary, invited the members to a luncheon at her summer home, "Riverview," on the Gasconade River. Twenty members motored down from Jefferson City and enjoyed a delightful luncheon followed by a business meeting. Preliminary plans were made for entertaining the State Auxiliary when the Medical Association meets in Jefferson City in May, 1938.

The Cass County Auxiliary entertained the doctors at a picnic supper in September at the home of Dr. and Mrs. A. H. Baldwin, Pleasant Hill. The principal speaker was Dr. Wilson, head of the state school at Marshall. Mrs. J. W. Lightner, second vice president of the Missouri Auxiliary, and Mrs. David S. Long, past state president of the Auxiliary, also spoke, discussing the work of the Auxiliary.

Mrs. Marvin L. Bills, Kansas City, has been chosen president of the Jackson County Auxiliary. She succeeds Mrs. Richard Bower who moved from the city.

Mrs. David S. Long, Harrisonville, has been appointed by Governor Stark a member of the Advisory Cancer Committee.

BOOK REVIEW

OBSTETRIC AND GYNECOLOGIC NURSING. By Frederick H. Falls, M.S., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, University of Illinois, College of Medicine; Attending Gynecologist of the Illinois Research and Educational Hospital, etc., and Jane R. McLaughlin, B.A., R.N., Supervisor of the Department of Obstetrics and Gynecology, Research and Educational Hospital, University of Illinois, etc. Illustrations by Charlotte S. Holt. St. Louis: The C. V. Mosby Company. 1937. Price \$3.00.

The authors have fulfilled their objective in writing this book, namely, to have it serve as an aid to nurses. The subject matter is treated clearly, concisely and with sufficient detail to serve as an excellent reference book. There are numerous illustrations throughout the entire text which are helpful in clarifying the contents. The illustrations are in the form of drawings which are clear and self explanatory.

The first part of the book is devoted to obstetrics, both normal and abnormal, while the latter part is confined to gynecology. Both subjects are completely covered and well described, including a discussion on the treatment to be instituted in each instance. The entire book is well planned and should find its way into all nurses libraries to serve as an aid and for reference in obstetrical and gynecological problems.

S. W.

THE JOURNAL

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THE OPPORTUNITIES OF INTERNSHIP

JACK BASMAN, M.D.

ST. LOUIS

During the last half a century there has been a great change in postgraduate training. Formerly graduates served for a number of years as apprentices or assistants to an older doctor and in this way secured experience in the art and practice of medicine. Due to the increase in the number of hospitals and the newer methods of diagnosis, a new institution has developed, "The Internship." It has become of such importance that at the present date thirteen medical schools require an internship before a medical degree is granted. Eighteen states require an internship before the state medical board examination can be taken. In the latest report of the Council on Medical Education and Hospitals of the American Medical Association, it was shown that 91.8 per cent of the graduates in the class of 1936 chose to continue their education in this manner. The internship is now considered a necessary factor in the training of the young doctor. It extends from one to five years depending on whether or not one pursues a specialty. Special hospital training is a prerequisite for certification by the various boards as being adequately trained as a specialist. The hospital has entrenched itself more firmly than ever as a factor in medical education. The American Medical Association has established rigid requirements before a hospital is accepted as suitable for training interns.

The opportunities of an intern to acquire medical knowledge as well as experience and skill in various procedures are many and varied. One of the most important and stimulating is the opportunity of assuming responsibility. In a hospital the intern for the first time has the direct charge and immediate care of patients, and they become to him personal problems instead of abstract diseases. The relationship

gives him the opportunity to observe the "background" of disease and the intimate effect of illness, not only on the patient but on the patient's family, and teaches him one of the chief functions of a physician which is to explain the nature of the trouble and the prognosis and to allay unnecessary fear and anxiety for the patient and his relatives. Often his advice also is sought by patients about other difficulties and he has the opportunity to appreciate the intimate personal nature of the relationship between patient and physician.

Two other opportunities not associated directly with technical medical training may be mentioned. First is learning that in the teamwork necessary for the best care of patients and the close association between physicians, nurses, and administrative staff, the best cooperation is obtained by keeping a courteous and pleasant demeanor and making requests tactfully. Second is that while the many and varied duties of an intern are very time consuming, the thoughtful organization of his work allows him to accomplish a great deal.

The most obvious opportunities of internship, however, are those connected with acquiring experience in the diagnosis and treatment of disease. Since an intern is usually in charge of a ward he has the opportunity to make complete physical examinations and to realize the importance of thoroughness in such work. He learns too that good history taking is an art not easily acquired, and that concise informative and well arranged histories are much better than a voluminous collection of facts. He finds that it is usually some time before he becomes proficient in this procedure which during his medical school days appeared relatively easy. In such preliminary examinations of patients he has the opportunity to make independent diagnoses and when these prove correct, to acquire some confidence in himself. A great advantage in hospital work is the supervision of the intern's work by more experienced physicians and the opportunity to correct his errors as well as to pat himself on the back when he has been right.

Resident Physician, St. Louis Children's Hospital, St. Louis.

In the care of patients in his charge he has the opportunity to put into practice his book knowledge and he begins to realize the variations in the clinical picture of disease. He often finds that the textbook picture of certain diseases is not always so typical clinically and certain presumably cardinal symptoms may sometimes be missing. In many cases he is able to follow the illness from the onset to its termination in recovery and in some he will see the necropsy findings and be better able to correlate the clinical disease with the pathological picture. In the course of his work he has the opportunity to realize that even the more experienced physicians are not infallible since he sees occasional errors in diagnosis by the visiting staff, and learns not to be too critical of such errors since diagnosis often must be made on insufficient evidence. Because of these difficulties he has the chance to see that all possible clinical and laboratory aids that may yield information about a case should be used. In this connection he has the opportunity to observe the practical use and value of such diagnostic methods and to observe their limitation in certain cases.

One of the best opportunities of internship is that of practice in the more important technical procedures which as a student he has had little chance to obtain. There is much satisfaction in acquiring skill in such procedures as blood transfusion, parenteral fluid administration, lumbar puncture, thoracentesis, myringotomy, gastric lavage and many others. While ordinary routine blood counts and urine examinations are relatively uninteresting, it is important for a physician to make such examinations a number of times until he acquires confidence in the accuracy of his tests. As an intern he has the opportunity to do this especially on patients in whom he has a real interest in the results from a diagnostic standpoint.

On a surgical service, the intern has an opportunity to gain experience in the diagnosis of acute surgical conditions, their preoperative and postoperative care, operative technic, the care of wounds, the progress of healing and the care of fractures and dislocations. He usually rotates through general surgery and the surgical specialties and so has a chance in a relatively short time to observe a variety of conditions. In order to obtain the same training in private practice, it would be necessary to spend a number of years.

Although some of the opportunities of internship have been enumerated, in reality the opportunities of an intern or house officer are what he himself makes of them and of what he takes advantage. It is possible for an intern to consider many of his opportunities as uninteresting routine and for him to disregard many of his

chances. On the other hand, if he applies himself, an intern even in some of the smaller hospitals has the opportunity to gain much knowledge and many skills which may be of tremendous value to him in practice.

500 S. Kingshighway.

THE ADVANTAGES OF SERVICE IN A STATE HOSPITAL FOR MENTAL DISEASES

EMMETT F. HOCTOR, M.D.

FARMINGTON, MO.

Gradual advances in psychiatry, better understanding and a greater appreciation by the medical profession of mental illness have resulted in state hospitals as a whole becoming active treatment centers for the mentally ill. The growing realization by physicians of the value and need of psychiatry in every day practice draws serious consideration to the possibilities for psychiatric training for the young physician. The teaching of psychiatry to undergraduates is receiving much attention from our medical educators.

Since the care and comfort of the mentally ill seems to be considered the responsibility of the state, state hospitals and other public institutions work with the greatest number of mentally ill persons. Few, indeed, are the general hospitals that will receive psychotic patients.

In Missouri there are four state hospitals for the mentally ill the combined population being approximately 7500 patients. Applications for the admission of mentally ill persons to the hospitals are constantly increasing, greatly taxing present existing facilities. During the year 1936 a total of 2382 patients were admitted to the four Missouri state hospitals. Of this number 485 patients were admitted to the Farmington institution.

The mental diagnoses recorded for the patients with psychosis admitted to the Farmington State Hospital during 1936 were as follow: General paresis 34, other forms of syphilis of the central nervous system 12, epidemic encephalitis 3, other infectious diseases 1, alcoholic 29, due to drugs and other exogenous poisons 8, traumatic 7, cerebral arteriosclerosis 79, other disturbances of circulation 10, convulsive disorders 24, senile 20, involutional psychoses 6, due to other metabolic, etc., diseases 5, organic changes of the nervous system 5, psychoneuroses 5, manic-depressive 18, demetia praecox (schizophrenia) 162, psychopathic personality 5, mental deficiency 28, undiagnosed

Superintendent, Farmington State Hospital.

psychoses 11, totaling 472 with psychosis. Diagnoses of patients without psychoses were: Epilepsy only 1, mental deficiency only 7, alcoholism 2, psychopathic personality 3, totaling 13 without psychosis, and a grand total of 485 patients.

Discharges for the year of patients with psychosis were: General paresis 15, other forms of syphilis of the central nervous system 2, other infectious diseases 1, alcoholic 20, due to drugs and other exogenous poisons 2, traumatic 2, cerebral arteriosclerosis 26, convulsive disorders 11, senile 5, involutional psychoses 10, due to other metabolic, etc., diseases 1, psychoneuroses 1, manic-depressive 16, dementia praecox (schizophrenia) 94, mental deficiency 11, undiagnosed 4, totaling 221. Of patients without psychosis discharges were: Mental deficiency only 1, alcoholism 3, drug addiction 1, psychopathic personality 1, totaling 6, with a grand total of 227 discharges.

There are over 500,000 mental cases in the various mental hospitals of the United States. Approximately 150,000 new cases were reported for last year. Statisticians tell us that as the general population increases 20 per cent, mental patients in hospitals at public expense increase approximately 100 per cent. The investment in mental hospitals in the United States is \$250,000,000. Of 900,000 hospital beds for all purposes in the United States, 46 per cent are for nervous and mental diseases. One out of every 325 people in the United States is in an institution for the mentally ill. The rate is 7.5 per cent higher than for tuberculosis. From this data alone it is evident that mental diseases create a great medical, social and economic problem.

Success in the treatment of the mentally ill depends on a careful classification of patients according to their mental condition. In the construction of the modern state hospital provision is made for the following: A psychiatric clinic building which is a complete diagnostic and treatment unit separate and apart from the continued treatment group, and where intensive study and care can be given the newly admitted patients; a complete medical and surgical building with clinical laboratories, roentgen ray, pharmacy and dental laboratories; infirmaries; buildings for the convalescent; buildings for the more chronically disturbed, and segregation for the tuberculous. The new reception units now in the course of construction at the various Missouri state hospitals will be thoroughly equipped reception and treatment units. Since a large number of patients recover sufficiently to be returned to the community within from six months to a year, many will spend the whole of their stay in this unit without close association with the more chronic cases.

Most states have difficulty in getting doctors who are trained in mental diseases to work in state hospitals; state hospital staffs as a whole have been so small there has been no possibility for a complete course of instruction for younger doctors. A psychopathic hospital established in conjunction with a medical school and general hospital where intensive training would be available for young doctors would make it possible for all medical students to have a much better training in psychiatry than they receive at the present time and, as a consequence, these doctors in their practice could help prevent many cases entering state hospitals for the insane. Many patients under intensive treatment have rapid cures. A psychopathic hospital having this relationship is more likely to be spared the stigma so frequently attached to hospitals solely for mental disease; association with the general hospital is of advantage with those patients in whom physical and psychiatric troubles co-exist, as is the case to a greater or less degree in many patients. The general practitioner is the first to see the patient. The early recognition of symptoms of a mental disorder and provision for early care and treatment would result in proper treatment being given when it is most indicated. Many patients are in hospitals today who, with more preventive service, might have been spared the need for hospitalization.

The accumulation over a period of years of many admissions of patients of definitely preventable character who are of long standing when finally admitted to the state hospital, together with the large number of admissions of cerebral arteriosclerotic and senile patients, results in a large proportion of state hospital populations being considered chronic cases. There is an ever increasing tendency to commit as insane, persons who simply require nursing care. This puts an unnecessary and useless strain upon the resources and services of the institution. Most state hospitals are permitted one resident physician for every three hundred patients or fraction thereof in addition to the superintendent. Complete physical and mental examinations are made on all patients entering the hospital. Surgical attention when needed is provided. The individuality of the patients must ever be kept in mind. Specific therapy is indicated in the majority of the patients admitted in addition to various therapeutic aids such as hydrotherapy, sedatives, occupations, psychotherapy, exercise and recreation. The largest group of patients admitted are cases of schizophrenia. Early cases of schizophrenia are given insulin shock treatment. Of cases treated in this hospital since January 1, the recovery rate has been 75.1 per cent. A study is being made at this hospital at the present time of

a modification of the treatment as originally given for more chronic cases. Hyperpyrexia by use of the inductotherm or therapeutic malaria is the treatment given for general paralysis; heavy metals and arsenicals are used in conjunction with this type of therapy. Glandular therapy has given outstanding results, particularly in the involutinal melancholia group. Hydrotherapy, the proper use of sedatives and psychotherapy, in most instances, bring about a return to health in manic-depressive patients. Definite contributions in the study and care of patients is being made by state hospitals, but the understaffed and underfinanced condition of these institutions is a great handicap in carrying on research work.

Because of the importance of the preservation of mental health and the prevalence of mental illness, and because the efforts of the state to deal with mental disorders and many closely related forms of maladjustment are centered in state hospitals, service in these institutions offers the young physician opportunity to practice medicine in its general application or in any of its special branches more effectively by becoming reasonably well equipped in the broad field of psychiatry.

State Hospital.

ADVANTAGES OF SERVICE IN THE STATE SANATORIUM

R. H. RUNDE, M.D.

MOUNT VERNON, MO.

Before we proceed further, we must state that the Missouri State Sanatorium is not prepared to offer internship; we will, however, take this opportunity to present some facts concerning tuberculosis which would be brought out most convincingly had an intern the privilege of serving in this or a similar institution.

The crowded curriculum of the four years in medical school does not permit the medical student to become a specialist in all phases of medicine. Some subjects must necessarily be slighted to a more or less degree. Tuberculosis is found on the list of neglected subjects far too frequently. This knowledge might still be gained during internship were it not that most general hospitals do not accept tuberculous patients. We feel that this attitude on the part of the hospitals is entirely correct. But as a result many young doctors enter the field of general medicine without the proper conception or adequate knowledge of the tuberculosis problem as it exists today.

It is true that medical schools have many

problems to solve but it must be remembered that tuberculosis still constitutes our greatest public health problem. In Missouri tuberculosis still ranks sixth among the causes of death. During the productive years of life, 20 to 40 years of age, tuberculosis takes a greater toll than any other disease. In 1935 there were 2210 reported deaths from tuberculosis in Missouri. The number of deaths per year multiplied by ten is the method frequently used for computing the number of active cases of tuberculosis. If that method of computation is correct, Missouri has approximately 20,000 cases of tuberculosis.

With the present morbidity and mortality it is quite probable that the general practitioner will frequently encounter the disease. In the fight for the eradication of tuberculosis, the general practitioner, the family doctor, will play the major rôle. It is to him the patient usually applies first for aid; and upon his ability to diagnose the disease and make the proper recommendations will depend the outcome of many cases.

It is regrettable that the Missouri State Sanatorium is so inaccessible to our larger medical and training centers. The facilities afforded for studying and observing all types of chest pathology in the various stages of the disease are unlimited at the Sanatorium. We have here a clearing house, not only for tuberculosis but for all other diseases simulating it in symptoms or roentgen ray findings.

The importance of differential diagnosis cannot be overemphasized. One would find here during his service that many cases are not clear cut and all our diagnostic aids must be called upon to arrive at a correct diagnosis. One would find that a careful history, physical examination, roentgen ray, laboratory tests including sputum examination, erythrocyte sedimentation and differential blood counts, are of importance in every case.

Until within recent years great stress was placed upon physical examination in the diagnosis of pulmonary tuberculosis. Unfortunately, roentgen ray films may be of poor quality and therefore difficult of interpretation, or a good film may be improperly interpreted. Such conditions have led many physicians to rely more on physical findings than on the roentgen ray film. It frequently becomes our duty at this institution to interpret roentgen ray films submitted from various sections of the state and we have seen films so black as to be almost homogeneous except for the ribs. It is needless to say that information regarding the intrapulmonary structures cannot be gained from such films.

It must be admitted that some physicians

have developed to a high degree ability to arrive at a correct diagnosis from physical findings and physical signs which are overlooked by most physicians will be detected by these men.

The superiority of the roentgen ray over physical examinations has been strikingly brought out in a comparison of physical findings and roentgen rays of one thousand patients having tuberculosis.¹ In all these cases the roentgen ray showed a definite lesion; in only eight hundred of these cases were definite physical findings found. In other words, two hundred cases would have been overlooked had the physical findings alone been relied upon.

In a study made at Trudeau Sanatorium of five hundred patients with pulmonary cavitation as shown by roentgen ray, only 5 per cent of the cavities were revealed by physical signs.

It is customary at this institution to complete the physical examination before consulting the roentgen ray film. Needless to say, we are frequently amazed at the discrepancies in the two results and the inadequacy of physical findings alone is constantly impressed upon us.

One would find during his service in this institution that the diagnosis of pulmonary tuberculosis is frequently made even though the sputum examination is negative. Occasionally physicians are hesitant to make a definite diagnosis of tuberculosis when the sputum examination is negative, even though the patient presents symptoms of tuberculosis and in some cases definite changes on the roentgen ray film, such patients being observed until a positive sputum report is obtained. Unfortunately, by the time an abundance of tubercle bacilli are found in the sputum, definite ulceration is present in the lung and not infrequently the disease has progressed beyond the stage in which maximum benefit is derived from collapse therapy. The positive sputum examination is of value in confirming the diagnosis of pulmonary tuberculosis, but a negative sputum examination should not be used alone to rule out tuberculosis.

We do not want to leave the impression of belittling or ignoring any of our diagnostic aids. Each has a distinct value which cannot be overlooked in any case. Therefore, let us say that the final decision should be made only after correlation of the facts and findings obtained from all our diagnostic aids, of which a properly made and correctly interpreted roentgen ray film is the most important.

In order that a satisfactory result be obtained from treatment, the case must necessarily be amenable to treatment at the time of admission to the sanatorium. Between 80 and 90 per cent of the adult patients admitted to this institution with active tuberculosis are beyond the minimal

stages at the time of admission. It is true that many of these patients were in the advanced stage before any physician was consulted; however, far too many were permitted to pass the early stages due to lack of early diagnosis. To consider that a patient is in the early stages of the disease because he is in fairly good general condition and is still able to be up and about is an error frequently made.

So much has been said about the value of sunlight in tuberculosis that sun baths are frequently prescribed. We believe that after a period of service you would become very skeptical of the value of sun baths in pulmonary tuberculosis. Not infrequently after the diagnosis of tuberculosis is made, sun baths are prescribed or taken on the patient's own initiative. In most of these cases, on admission, we find a well tanned individual with active fulminating type of tuberculosis and a fatal termination before many months. We have also seen patients with inactive or quiescent disease on leaving this institution return after a few months with a rapidly progressing lesion the only change in the routine having been the taking of sun baths.

Permit me to present some of the conclusions of Kibler and Watson² who have been studying the value of heliotherapy in tuberculosis for twenty years. "It (heliotherapy) may be of some value in an occasional case of the proliferative type of true pulmonary tuberculosis; but here it must be employed with the greatest caution lest it transform a favorable stationary or healing lesion into a rapidly progressing fatal one. Ordinarily the benefit to be expected from its use is too slight and the danger too great to justify the risk.

"It is never of value and is usually actually harmful in the exudative type of pure pulmonary tuberculosis as well as in all acute types and, in such cases, therefore, it ought never to be used."

Although sun baths are a dangerous therapeutic procedure in pulmonary tuberculosis, great benefit is frequently derived from sunlight in the nonpulmonary forms of tuberculosis such as enteritis, laryngitis and tuberculosis of the bone.

Do you have any definite views in regard to climate in the treatment of pulmonary tuberculosis? When the diagnosis of tuberculosis is made, climate is frequently given first consideration. Sufficient finances are gathered together to make the trip West, with no provision for treatment after arriving there. It has been very disturbing to physicians of the Southwest to see so many patients arriving, financially unable to be cared for; and many are advised to return to their native states and seek treatment. It is a well known fact that tuberculosis can be

cured in any climate. To Osler is attributed the statement that "Treatment without climate is better than climate without treatment."

Without a doubt the greatest advances in the treatment of pulmonary tuberculosis have been along the lines of collapse therapy. Cases thought to be incurable ten years ago are now greatly improved and in some cases cured with the aid of collapse therapy. The prognosis of many advanced cases of tuberculosis has been changed from unfavorable to favorable by the use of artificial pneumothorax. Physicians at the Sanatorium have the opportunity to become skilled in the selection and management of pneumothorax cases.

Missouri at the present time is in urgent need of physicians trained in pneumothorax work. In our larger cities adequate facilities are available but we have many sections of the state where such facilities are not available. In many instances patients must travel a hundred miles to secure the necessary treatments, and patients must necessarily be kept in the Sanatorium a longer time so as to be in condition to make such trips. With Sanatorium beds at a premium, as they are now, any procedure that will safely shorten the Sanatorium stay is appreciated.

We wish to thank the physicians of the state for their cooperation with the Sanatorium and we desire to extend a sincere invitation to visit the institution. It is our desire to be of the greatest possible service in helping to eradicate public health enemy number one—tuberculosis.

Missouri State Sanatorium.

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In the course of the last few years Edward A. Cafritz, Washington, D. C. (*Journal A. M. A.*, April 17, 1937), has treated about twenty-five cases of appendiceal peritonitis along the lines mentioned; namely, he has simply eliminated the focus of infection and closed the abdomen, introducing a rubber tissue drain down only to the closed peritoneum; the results obtained were so encouraging that he draws the following conclusions: 1. Drainage of appendiceal peritonitis is indicated: in cases in which the primary focus of infection cannot be removed, in cases in which a large amount of necrotic and contaminated tissue is left in the abdominal cavity and in cases of walled-off abscess. 2. In all other cases of appendiceal peritonitis, drainage is definitely contraindicated. 3. The advantages of nondrainage are: there is less morbidity and less mortality, it minimizes the possibility of postoperative mechanical ileus, shortens the duration of illness, minimizes the tendency of postoperative hernia, excludes the possibility of development of a fistula and minimizes the tendency of postoperative adhesions.

THE PSYCHOLOGICAL APPROACH TO THE HANDICAPPED CHILD

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The title of this article was assigned to me by the Editor of *THE JOURNAL*. As an orthopedic surgeon, my prime interest is in treating children that have some handicap or deformity; but in order to obtain the privilege of doing this it is often necessary to aid in securing the cooperation of such children. Most physically handicapped children with normal or excellent mentalities are found in families of limited financial background. For this reason a state service for these handicapped children, of which an example is the Missouri Crippled Children's Service, is necessary in order to finance their care.

The mere fact that the state sees fit to appropriate money for the hospitalization and care of handicapped children is not sufficient in itself to secure the cooperation either of the child or its parents in the necessary treatment. It has been my experience that a doctor by himself fails as often as he succeeds in making a favorable contact with the child, and by the child I mean the necessary close relatives who are concerned with his welfare.

For this reason, it is desirable to have a third party who will act as an intermediary in this important phase of this work. Such a third party may be a specially trained field worker such as an orthopedic field nurse, or may be an interested school teacher who knows the child and his situation well and in whom the child has confidence. It may occasionally be the family physician who has observed the handicap from which the child suffers and who is himself interested in this phase of his development; or it may be some interested lay person in the community who simply has the general welfare of the community at heart and wishes to see such a child given every opportunity the parents or the community can afford.

From the surgeon's standpoint cases present a variety of conditions that may be benefited either very slightly or in which the improvement following treatment may be quite dramatic. Often the patients for whom relatively little is done or when the treatment is very simple in order to gain startling results, are the ones who are most appreciative; those upon whom the surgeon must spend a considerable amount of time and effort and for whom the results are not so apparent, perhaps will be least grateful for this expenditure of effort.

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It has not been my experience that any claims that the surgeon may make in predicting the outcome of treatment will be accepted nearly as much as are those promises which this third intermediate party can make. Such a third party being a trained field worker or simply an interested family friend who has some knowledge of similar conditions can promise and guarantee extravagantly and do more to assure the cooperation of the child than can any amount of persuasion by the surgeon who intends to treat the child.

Assuming that the handicapped child has been examined and that definite treatment can be prescribed which often necessitates hospital care, the child is brought to the hospital to begin his treatment. Such a hospital should have special facilities for handling handicapped children quite aside from the medical aspects. It is important that the handicapped child be taught to regard his defect as of minor importance and that he be given a sense of confidence in himself that will permit him to feel that he is just as able, or perhaps more able, to compete with normal children in whatever phase of endeavor he may elect to pursue. Curiously enough, this sense of confidence is not instilled in such a child by shielding him from public gaze but rather by demonstrating him openly to observers whose interest is not one of morbid curiosity but of some scientific background.

All children between the ages of 6 and 16 expect to attend school since this is a custom established by law in most of our states. Accordingly, a school should be provided in the institution, approaching as nearly as possible an average school with regard to work covered, the regularity of class room hours and the insistence on the part of the teachers of creditable work being done. In this regard it is of value, if the handicapped child requires repeated hospital stays, to see that his school work is accepted in his home institution at its full value when he returns to his home.

A certain amount of religious training is of value. This need not be specialized or dogmatic in its application, but may merely follow the usual type of elementary religious instruction that a child would receive in any average Sunday School.

Recreation is of prime importance in handling handicapped children. All too often in their own homes these children have been shielded from participation in normal children's recreational activities, either because of some unsightly evident deformity or because of some fear of reinjury to an existing condition which might come about through physical contact with other children. Occasionally, the normal children are withdrawn from the handicapped chil-

dren because of fear of contaminating their minds or bodies by such contact.

It is the privilege of every child to have an abundant amount of time for play and personal enjoyment, and it should be the privilege of an institution caring for such children to provide such time in rather extravagant amounts in order to compensate for the deficiency that may have previously existed in this respect. In this last phase of recreational activity it is possible and desirable to make it serve some active purpose, at least in part, and this is accomplished through the medium of occupational therapy. In a properly directed program of occupational therapy much can be done to initiate the idea in a child's mind that it is possible to have an occupation later in life that is pleasant and interesting, as well as one that will provide the necessary financial and social remuneration that is incorporated in any gainful phase of occupation.

Not infrequently it becomes apparent to a child in such an institution that the teachers, nurses and doctors who are supervising his physical and mental rehabilitation derive a tremendous amount of enjoyment from doing this phase of the work, and thus they give the child some insight into this important phase of mature life and vocation.

A great deal more can be accomplished with children by the surgeon when he is fortunate enough to have these additional facilities in his institution, and the child who is cared for in such a well rounded and well balanced institution has a better chance of approaching the normal child both physically and mentally.

University Hospitals.

GASTRIC CARCINOMA AND PEPTIC ULCER

Cranston Holman, New York (Journal A. M. A., April 24, 1937), performed gastric analyses on ninety patients with peptic ulcer and on sixty-two patients with carcinoma of the stomach in an effort to determine the diagnostic value of a properly performed gastric analysis. The analysis led to a correct diagnosis in 96 per cent of the cases. All the 152 patients either were operated on or came to postmortem examination. All ninety patients with peptic ulcer had a secretion of free hydrochloric acid that fell within normal limits (from 60 to 110 degrees) or were above normal. With five exceptions, the sixty-two patients with cancer of the stomach had a low acidity or an acidity. The diagnosis was correct in a larger percentage of cases when it was based on gastric analysis than when any other single method was relied on. Taking the 152 cases of stomach lesions, both ulcer and carcinoma, as a group, one finds that the clinical diagnosis was correct in 77 per cent of the cases and the roentgenographic diagnosis in 88.2 per cent. The diagnosis made by the surgeon at the operating table by inspection and palpation was correct in 93 per cent of the cases, whereas the diagnosis based on the gastric analysis was correct in approximately 97 per cent of the cases.

THE ACUTE ALCOHOLIC

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During the last two years there were 1887 cases of alcoholism admitted to the St. Louis City Hospital. About two thirds of these cases were classified as acute. There were 17,907 cases of alcoholism handled by the Police Department during this time. Most of these cases were treated in the receiving room of the hospital but were not acutely ill enough to warrant hospitalization. Of the 1887 cases admitted to the hospital fifty died and autopsies were obtained on nine of them. In these cases alcohol was considered either the immediate or the contributory cause of death.

Alcohol is a narcotic and causes a varied picture in the human depending on the amount consumed and the duration of the alcoholic state. The acute alcoholic passes through various stages beginning with excitement and stimulation of activities, passing into drowsiness, vomiting and impairment of emotions and sensations, then loss of consciousness and all sensation. If the narcosis is deeper he passes into a stage described by Sollman¹ as the paralytic stage, in which there are symptoms of beginning medullary paralysis with a weak pulse, slow stertorous respirations, skin cold and cyanotic, reflexes abolished and a subnormal temperature. This stage may terminate in death.

The polyneuritis of alcoholics has been shown to be the result of avitaminosis, chiefly vitamin B deficiency, by various workers.^{2, 3, 4, 5, 6, 7} The ingestion of whiskey has no demonstrable toxic effect on the peripheral nerves. Straus⁵ showed that alcoholic polyneuritis improved if treated with a diet rich in all vitamins, supplemented with oral and parenteral vitamin B, even while the patients were given from a pint to a quart of blended whiskey daily. Alcoholic polyneuritis may be regarded as similar to the polyneuritis of beriberi and treated accordingly.

Spies and DeWolf⁷ have shown that 90 per cent of patients with pellagra developed it following severe alcoholism. Blankendorn and Spies⁸ found specific lesions of the tongue and mouth in approximately 60 per cent of chronic alcoholics and considered these lesions manifestations of a serious deficiency state. Blottner⁹ showed that a proper amount of alcohol destroys the proteolytic activity of certain gastro-intestinal enzymes in and outside the body. He suggested that alcoholic polyneuritis may be caused, in part at least, by faulty digestion and assimilation of food resulting from the destruction of

digestive enzymes by large quantities of alcohol taken over a considerable period of time.

Myers and Keefer¹⁰ have shown that acute pancreatic necrosis may occur following an acute bout of alcoholism especially if there is prolonged nausea, vomiting and retching. Pancreatic necrosis and chronic pancreatitis are found in conditions commonly associated with alcoholism such as cirrhosis and fatty infiltration of the liver.

AUTOPSY CASES

In our autopsy cases all but two showed marked fatty infiltration of the liver. The brain was examined in only three of the cases; two showed cerebral edema and the other showed rather marked cerebral atrophy. Four cases showed a bronchopneumonia. One case, a man aged 45, a chronic alcoholic who entered the hospital vomiting blood and in shock, at autopsy showed an acute gastritis with erosion of blood vessels and resultant hemorrhage.

Several cases have been admitted to the hospital in coma and with hypoglycemia. These are usually found unconscious and brought into the hospital without any history. A 65 year old man was brought to the hospital unconscious and in shock. The temperature rectally was 95 degrees Centigrade. The pulse was feeble and 104 per minute. An emergency blood sugar showed 8 mg. per 100 cc. of blood (true sugar, normal values, 70 to 95 mg. per 100 cc. of blood). The N. P. N. was 50. The patient did not respond to intravenous glucose, stimulants, etc., and expired a short time later. At autopsy the normal liver architecture was almost entirely replaced by fatty infiltrations. Another similar case showed a blood sugar of 11 mg. per 100 cc. of blood on admission to the hospital. This patient responded immediately to intravenous glucose but expired suddenly twenty-four hours later.

Another patient with a history of chronic alcoholism over a long period of time entered the hospital irrational and acutely ill and died a few hours after admission. At autopsy there was an acute pancreatic necrosis with marked fatty infiltrations of the liver.

These autopsy cases illustrate the pathology frequently found in alcoholic deaths and some of the difficulties encountered in diagnosis and treatment of some of these cases. While the acute alcoholic patient can usually be given a good prognosis for recovery, a number of these cases are real medical emergencies and require accurate diagnosis and active treatment.

TREATMENT

The treatment of the alcoholic depends on the condition of the patient and the stage of the

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alcoholism. Ordinarily evacuation of the stomach by means of a stomach tube followed by a saline purgative is indicated. Apomorphine may be used, which also acts as a hypnotic. In the excitement stage sedatives are necessary. Paraldehyde, bromides and chloral hydrate are the drugs most commonly used. Atropine is also recommended in the excitement stage. In the depressant stage caffeine or strychnine is used as a stimulant.

Alcohol is ultimately a depressant and this effect has been shown to be related to the impairment of oxidation in the tissues, especially the nervous system. Bancroft¹¹ believes that the symptoms of acute anoxemia are precisely those of alcoholic intoxication and that "acute oxygen want simulates drunkenness, while chronic anoxemia simulates fatigue." Himwich and his coworkers¹² state that the ingestion of alcohol is followed by an acidosis resulting from a relative retention of carbon dioxide and an accumulation of lactic acid, causing a diminution of the alkali reserve. They attribute the after effects or "hang over" to increased arterial lactic acid.

Hunter and Mudd¹³ in 1924 observed that patients in coma due to alcohol were improved by the inhalations of increased concentrations of carbon dioxide. Palthe¹⁴ in 1926 found that the inhalation of oxygen prevented death in rabbits who had been given alcohol in doses that were lethal to control rabbits. The work of McFarland and Barach¹⁵ showed that the inhalation of 50 per cent oxygen with an increased per cent of carbon dioxide for two hours lowered the alcohol and lactic acid content of venous blood in subjects who had previously ingested from $\frac{3}{4}$ to $1\frac{1}{4}$ grams of alcohol per kilo body weight. This was accompanied by a corresponding improvement in mental and motor behavior. In about 20 per cent of the subjects tested this change did not occur.

Robinson and Selesnich¹⁶ also found an accelerated decrease in venous blood alcohol levels by carbon dioxide-oxygen inhalations over a period of thirty minutes or more, indicating an accelerated decrease in total body alcohol. The blood lactic acid content was elevated in alcoholism but was unaffected by carbon dioxide-oxygen therapy. However, Newman and Card¹⁷ observed that carbon dioxide-oxygen inhalations did not significantly reduce the total body alcohol.

Acute alcoholic coma causes a dangerous respiratory depression, paralysis and cyanosis. Death may be prevented and recovery accelerated by the inhalation of 90 per cent oxygen and 10 per cent carbon dioxide for a time sufficient to reestablish normal color and respiration. Usually the oxygen-carbon dioxide mix-

ture is given for a period of from one half to two hours.

Since the alcoholic patient is usually in a state of starvation and avitaminosis, he must be given a high caloric diet and a diet rich in all vitamins, supplemented with large dosages of vitamin B. This diet is especially necessary for cases showing avitaminosis with mouth lesions, pellagra or other signs of vitamin B deficiency. Blankendorn and Spies⁸ recommend a diet consisting of 4000 calories and 75 grams of yeast with liver extract daily. As stated before improvement will occur in these cases of polyneuritis and pellagra while still taking large amounts of alcohol if an adequate diet and vitamin B are supplied, thus proving that vitamin deficiency is the cause of these complications and not alcohol per se.

Another serious complication is that of cerebral edema with symptoms of increased intracranial pressure. These patients are usually irrational, very excited and critically ill. There is frequently papilledema and the spinal fluid is under increased pressure. If the patient shows bruises and lacerations about the head, as is often the case, the differentiation between intracranial hemorrhage, with or without a skull fracture, and cerebral edema is often difficult. Chloral hydrate and sodium bromide are given rectally for sedation. Saline purgatives and hypertonic glucose intravenously aid in relieving the cerebral edema. Repeated spinal drainage is also recommended.

Another complication which we have observed in several of our cases and one which could be easily overlooked is that of hypoglycemia. Most chronic alcoholics have fatty livers and there is little glycogen present. A period of starvation depletes the blood glucose and the liver cannot replace this glucose since the glycogen reserve is so low. This state soon results in hypoglycemia with its resultant symptoms. Further, since the process of ketosis occurs chiefly in the liver and particularly in the presence of low liver glycogen, acidosis soon occurs and adds further to the gravity of the patient's condition. Adrenalin is obviously of little value in treating the hypoglycemia since the liver glycogen is already depleted.

The acute alcoholic is especially susceptible to bodily injury such as skull fractures, lacerations, bruises, etc., because of his uncontrolled actions. These complications must always be kept in mind when examining such a patient. A skull fracture can be easily overlooked in an unconscious alcoholic patient.

SUMMARY

The acute alcoholic represents a real medical problem, especially in a large municipal hospital

such as the St. Louis City Hospital, as evidenced by the large number of cases seen each year. These cases should not be treated as "drunks" and merely put to bed to "sleep it off." Careful examination is necessary to rule out a serious condition such as cerebral edema, intracranial hemorrhage, acute pancreatitis, hypoglycemia, skull fracture, etc. These conditions demand immediate and proper treatment since they are real emergencies. Recent investigations have greatly aided in the treatment of the alcoholic, especially the oxygen-carbon dioxide therapy and the realization that the alcoholic is usually in a state of starvation and avitaminosis leading to polyneuritis and frequently to pellagra.

CONCLUSIONS

1. There were 1887 cases of alcoholism treated in the St. Louis City Hospital in the last two years.
2. The Police Department during this time handled 17,907 cases of alcoholism, most of whom were seen in the receiving room of the hospital.
3. The findings in nine autopsy cases of acute alcoholics are briefly summarized.
4. The various complications of alcoholics are discussed.
5. The treatment of the acute alcoholic patient is outlined.

St. Louis City Hospital.

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MODERN METHODS OF TYPING THE PNEUMOCOCCUS

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Recent advances in our knowledge of the treatment of lobar pneumonia of pneumococcal origin have made it imperative that sputum from patients suffering from this disease be accurately and quickly typed. The accurate and early knowledge of the type of pneumococcus causing a given case will aid materially in therapy as well as prognosis.

The modern methods available for typing organisms make it feasible for any laboratory to carry out the procedure. It is no longer necessary to use mice in determining the type, and no special equipment is necessary.

For many years the pneumococci have been divided into four groups or types; namely, types I, II, III and IV. The first three groups were specific types, while type IV was a heterologous group containing all those pneumococci which were not agglutinated by types I, II or III serum.

Cooper and her associates,^{1,2} however, have divided this heterologous group IV into a series of individual types. She reported the separation of twenty-nine types up to 1932 so that we now have thirty-two types of pneumococci which can be differentiated on the basis of agglutination tests. The knowledge of these various types has added much to treatment. The pneumonias occurring in childhood are most frequently caused by some one of the newly classified organisms.³ Sutliff and Finland⁴ have shown in a large series of cases that the various types produce pneumonias in the following order of frequencies: types I, II, III, VIII, V and VII. They have further shown that these six types are etiologically responsible for 81 per cent of lobar pneumonia, while types X and XIV account for 5.2 per cent more. When it is necessary, therefore, to limit the types of sera used in the laboratory, the eight mentioned above will type about 85 per cent of the pneumococci which are usually found in pneumonia. Other interesting facts brought out in the paper by Sutliff are that types VI, VIII and X occur frequently in sputums secured from patients not having pneumonia, while types IX and XIV are almost invariably associated with pneumonia.

The virulence of the various types may be deduced from the following statistics which give the percentage of mortality by type in cases not treated by antisera or for which no

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such sera is available: Type I, 29.6 per cent; type II, 39 per cent; type III, 65.3 per cent; type V, 86.8 per cent; type VII, 29.8 per cent, and type VIII, 22.8 per cent.

Therapeutically, types I, II, V, VII and VIII sera are available commercially and have apparently been useful in reducing the mortality and complications of pneumonia caused by these organisms. Other sera for the various types are being tried out and it is possible that other specific antipneumococcic sera will be on the market soon.

It is not my purpose to introduce an original method for the typing of the pneumococci but simply to review the methods which have been proposed in recent years and to give an impression of their value as observed in the laboratory of the Department of Internal Medicine at Firmin Desloge Hospital.

The mouse inoculation and microscopic agglutination test for typing the pneumococci^{5,6} is the oldest and best known of the various tests. This method is reliable and is capable of giving the most consistent results. The technic is such, however, that a period of twenty-four hours must elapse before the typing can be done. This delays therapy and is, therefore, detrimental to the best interest of the patient. In addition, mice must be available and this makes the test impractical for the physician's office or the small laboratory.

Many investigators have attempted to eliminate, as far as possible, the element of time and the use of animals. This has led to the development of the so-called rapid method of typing.

Krumweide and Valentine⁷ in 1918 proposed an ingenious method which may be done as follows: 5 cc. of a suitable sputum are coagulated by heat in a water bath. The coagulum is separated by centrifugation and resuspended in saline. This is reheated to dissolve the soluble antigen. A small amount of this solution is placed in test tubes and overlaid with known antisera. A white ring at the junction of the two fluids indicates a positive test for that type. This method in our experience has yielded unsatisfactory results.

Sabin⁸ has proposed a test which is fairly rapid and quite accurate. It does, however, require the use of mice and this constitutes a disadvantage. The test is usually called a microscopic agglutination test and is done as follows: 1 cc. of sputum is injected into the peritoneal cavity of a mouse. Three to four hours later a sufficient amount of peritoneal exudate is removed by means of a glass capillary tube or a small syringe and needle to yield four drops. One drop is placed on each of four slides; the first drop is diluted with normal saline; the second drop with a dilution of one to

ten type I antisera; the third drop with a one to ten dilution type II antisera, and the fourth drop is diluted with one drop of one to five dilution type III antisera. The mixtures are allowed to dry and stained with carbol-fuchsin and examined under the oil immersion lens. Agglutination in any one of the serum mixtures indicates that that is the type responsible for the disease. If no agglutination occurs, type IV is responsible. This method can be applied to the newer types if appropriate sera is used.

Neufeld in 1901⁹ described the phenomenon of capsular swelling when a pneumococcus was mixed with the serum of corresponding type. Armstrong¹⁰ in 1932 used this observation to develop the method usually known as the Neufeld method. The technic proposed by Armstrong was as follows: A speck of sputum was mixed with the serum of a specific type and was examined under the microscope by means of the high dry objective with the condenser removed.

The characteristic reaction consisted of the highly refractile coccus being surrounded by a large translucent zone, representing the pneumococci with the swollen capsule. With this method, considerable practice and careful technic is essential to obtain satisfactory results and the method was not generally used because most laboratory investigators could not obtain consistent results. Sabin¹¹ in May, 1933, published a modification of the Armstrong technic and pointed out the necessity of using rabbit antisera in this method. The Sabin technic is essentially as follows: A fleck of sputum is placed on a vaseline-rimmed cover slip. To this is added one drop of a known rabbit antiserum and a drop of alkaline methylene blue as a stain. The whole is inverted over a hollow ground slide and read with the oil immersion lens. A positive result is indicated by the marked swell-

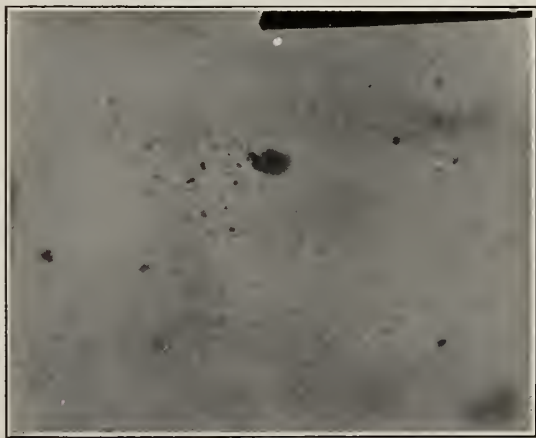


Fig. 1. Swelling of the capsule of the pneumococci as typed by the Neufeld method.

Table 1. *Sputum*¹

Gram Stain for Presence of Pneumococci				
Many Pneumococci		Few Pneumococci		
Neufeld Method	Sabin Rapid Typing Method ² (Microscopic Agglutination)	Mouse Inoculation		
Group Sera ⁴		Neufeld Method (After 4 to 6 hrs.)	Sabin Rapid Typing Method (Horse Serum)	Macroscopic ³ Agglutination Method (After 12 to 24 hrs.)
A = 1, 2, 7				
B = 3, 4, 5, 6, 8				
C = 9, 12, 14, 15, 17				
D = 10, 11, 13, 20, 22, 24				
E = 16, 18, 19, 21, 28				
F = 23, 25, 27, 29, 31, 32				

1. Krumweide's precipitation test may be used on sputum.

2. Rabbit immune sera required.

3. Horse immune sera may be used.

4. Grouping of types facilitates typing; after the organism is placed in one group, it may be typed for the specific type in the group.

ing of the capsule about the pneumococcus. The pneumococcus is seen as two tiny blue dots surrounded by a large grayish refractile zone. Agglutination may take place but this is not essential or desirable in the test. The swelling requires specific rabbit antisera for its development. Horse serum of the type used in the microscopic or macroscopic agglutination tests will be found unsatisfactory. The bacteria in the sputum must be fairly abundant or the test will be extremely difficult and time consuming. Figure 1 is a photograph of the typed pneumococcus showing the refractile and swollen capsule.

The technic employed at Firmin Desloge Hospital is as follows: A Gram stain is made to determine the number of pneumococci present in the sputum. If pneumococci are present in large numbers the following procedures are carried out: (1) The Neufeld method as modified by Sabin is used with the further modification of placing the hanging drops in the incubator for five minutes. This procedure seems to facilitate the reading of the test. (2) If the direct Neufeld is unsatisfactory, a mouse is inoculated with 1 cc. of sputum and in three or four hours fluid is withdrawn from the peritoneal cavity and the Neufeld method, as well as the Sabin micro-agglutination test, is done. The mouse is then available in twenty-four hours for the macroscopic agglutination test, if necessary. When the sputum contains few pneumococci the first step is omitted and the procedure begins with the second part.

Recently group sera for typing have been used. These are now available in six groups which contain the antibodies for all thirty-two types. If any group serum gives a positive test the specific type is determined by using the various individual types of sera contained in that group. Table 1 illustrates diagrammatically the various procedures.

By the Neufeld reaction about 80 per cent of the cases will be satisfactorily typed. This corresponds with the observations of both Cooper and Bullowa.¹²

CONCLUSION

Present day knowledge of pneumonia enables accurate and rapid typing of the pneumococci. This may be accomplished by the use of the rapid methods, the Neufeld method being the method of choice.

The simple typing of pneumococci so as to group them into three types using type IV as a catch-all, is insufficient, inaccurate and unscientific. It furthermore deprives the physician of valuable information upon which he might base the successful treatment of his patients.

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SIMULTANEOUS MALIGNANT CHANGE IN BENIGN TUMORS

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Numerous cases of the simultaneous appearance of two or more malignancies have been reported, but the case reported here is unusual because of the appearance of malignant change in two distinct tumors which ordinarily have been considered benign.

REPORT OF CASE

Case 1. An elderly female, aged 75, an inmate of a state mental institution, was found by attendants to have a swelling of the right breast. For some years she had had a number of wens of the scalp, two of them on the occiput. The mass in the breast was the size of a baseball, slightly flattened but not discolored or attached to the overlying skin or pectoral fascia. There was slight retraction of the nipple. Transillumination of the mass showed no light transmission. Palpation did not cause pain. No enlarged axillary nodes were encountered. The wens of the occiput were soft, more or less oval and moved freely beneath the surface skin. On February 26, 1937, under ether anesthesia the breast mass and wens were removed. The clinical diagnosis was chronic mastitis with cyst formation and multiple sebaceous cysts of scalp.

Gross Pathology.—Freely moving under the surface skin were two prominent rounded oval protuberances averaging 5.5 by 4 by 4 centimeters, essentially containing encapsulated fibrous cyst-like bodies filled with non-fatty debris and irregular white cheesy material. The inner surface showed considerable irregularity, fungoid formation and, at one place, a great external thickening of the capsule encroaching on the specimen base.

The breast was removed by simple mastectomy. Encroaching on one quadrant was a large round cyst-like swelling bulging under the skin and threatening rupture. On puncture, brownish bloody fluid escaped from a relatively encapsulated thick walled cyst, 9 centimeters in diameter, exhibiting noninvading soft pink fungoid ingrowths at several points and, in one area, a granular fibrous white invasive thickening about 1.5 by 1.5 by 2 centimeters with loss of encapsulation. The specimen base was not encroached.

Microscopic Pathology.—The cyst walls of the dermoid masses consisted of thin stratified squamous epithelium and a tremendous superimposed deposit of degenerated keratin. At several points this was supplemented by large down-growing interweaving lobules and masses of squamous epithelium associated with keratin accumulation, pearl formation and a low-grade maturation and variability of the involved cells. Mitotic figures were not common. Large accumulations of fatty acid and cholesterol crystals, usually supplemented by calcareous deposit, appeared at some points in these areas. The specimen was essentially a congenital simple dermoid cyst with accumulation of keratin, undergoing secondary malignant change.

The breast specimen showed thin, capsular walls of a cyst-like structure with the central cavity occupied by and replaced by a polyhedral epithelial type of cell, apparently of a papillary type, associated with a mod-

erate vascular stalk. This type of cell was of malignant character, varying in size and depth of staining and showing mitotic figures. As a rule in most of the tissue the growth itself had not invaded the capsule but was identified within adjacent lymphatics. One section, however, displayed smaller dilated spaces of undetermined type filled with this type of growth in close association with a secondary infiltrating epithelial growth of simplex character spreading in mesh-like fashion with occasional gland reproduction. In these areas the cells had assumed quite malignant characteristics. The diagnosis was cystic disease of the breast with hyperplasia and carcinoma of the breast, the latter within blue dome cyst formation. Other breast tissue presented the characteristic changes of cystic disease of the breast.

The roentgen films taken prior to operation did not show any abnormalities in the pulmonary or skeletal fields. After operation, the breast was submitted to complete deep roentgenotherapy over appropriate areas. Operative wounds have healed readily and to date no evidence of metastasis has been encountered.

COMMENT

Attention has recently been paid to the possibility of malignant change in sebaceous and simple dermoid cysts, a condition which has ordinarily been considered as negligible entities and as such had been tolerated, both by the laity and the profession, without removal. Likewise, the condition of blue dome cysts concomitant with cystic diseases of the breast had been considered as necessarily of benign character, precluding a diagnosis of malignancy. This attitude, however, has changed and cystic disease of the breast is now regarded at times as a premalignant condition. Within the last three years the author has encountered infiltrative squamous carcinomas in three dermoid cysts of the ovary and definite malignant change occurring within a blue dome cyst in five cases associated with invasion of the adjacent breast tissue. The association of the cystic disease of the breast with malignancy is not uncommon, and in one personally observed case of bilateral cystic disease, malignancy was encountered at three distinct unrelated, distinctly separated points in one breast and at a fourth point in the opposite breast. The small size of all of these four last mentioned lesions, each of which was locally invasive, would indicate that each had arisen locally, coincidental with a marked cystic disease of the breast with hyperplasia.

State Hospital.

J. C. Drooker, Boston (Journal A. M. A., Oct. 9, 1937), presents a case in which it can be shown by microscopic proof that there occurred three separate and distinct primary carcinomas all situated above the thorax. The patient has survived all these three primary malignant tumors, one recurrence, and a grade 3 metastasis. He was seen May 20, 1937, and was found to be symptom free and showed no evidence of recurrence nine months since his last operation.

A SIMPLE CONTINUOUS SUCTION DEVICE WITH SOME NEW INDICATIONS AND USES

MAX GOLDENBERG, M.D.

AND

I. C. MIDDLEMAN, M.D.

ST. LOUIS

The continuous suction device is simple to construct, the parts necessary are available in any hospital. It consists of two standard five liter jars, a burette clamp, the barrel of a two ounce ground glass syringe, a 500 cc. flask or wide mouth bottle, two two hole rubber stoppers, a few feet of 3/16 inch bore glass and rubber tubing, a nasal tube and an ordinary screw clamp.

The principle of operation is as follows (figure 1): Water drips from the upper five liter bottle (A) by syphonage, which is usually begun by suction, into the chamber (C), the rate of flow being controlled by clamp (B). As

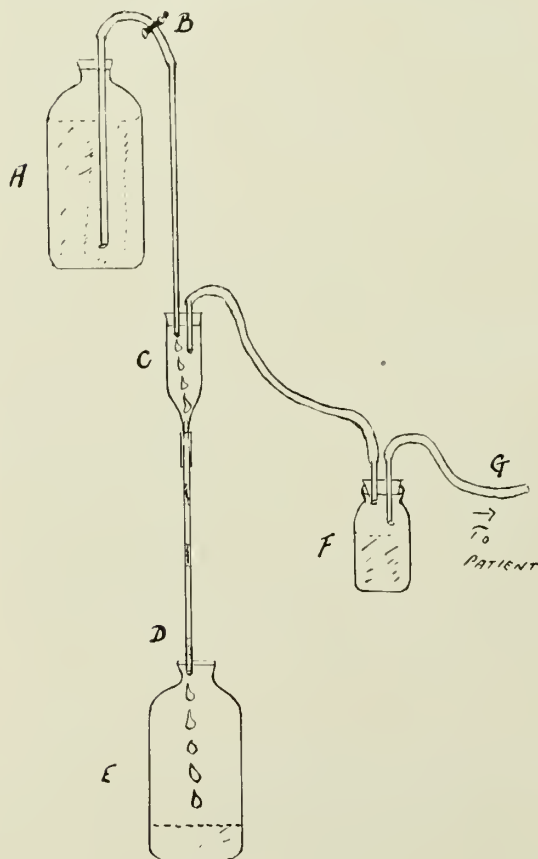


Fig. 1. Diagram of apparatus.

From the Surgical Department of the Jewish Hospital, St. Louis.

the drops run down the tube (D), completely occluding its lumen in their course, air, trapped between the drops, is continually being removed from the chamber (C), thereby creating a negative pressure in the latter. The bottle on the floor (E) is used merely as a receptacle for the water dripping from the bottle above. The negative pressure in the chamber (C) is transmitted to the interposed flask (F) which collects the drainage brought to it by the tubing (G).

This setup requires little attention by a nurse. In a routine case the feeding bottle needs to be filled only twice or possibly three times in a twenty-four hour period. A particular advantage is that the upper bottle can be filled from the lower without disturbing the setup and without requiring inversion, et cetera, as with the Wangenstein. It is an open system and, in a sense, perpetual. The upper bottle may be clear or amber. If clear, a colored solution is usually used so that the patient can easily see when the bottle is becoming empty and can call the nurse to have it refilled. This is usually unnecessary because the drip is very slow, the usual rate being about one drop per second. The five liter bottle suffices for from eight to twelve hours depending upon the rapidity of the flow of drops. The suction can be increased or diminished by adjusting the screw clamp, increasing or decreasing the drip from the syphonage bottle. This can be varied depending upon the character of the drainage and specific indication.

Another improvement in this arrangement is that, whereas in a Wangenstein apparatus the suctioned fluid is used to replace that which drips from the feeding bottle, in this setup tap water is used and the original 5000 cc. is always available. Because of the viscosity of the suctioned fluid and because the drainage must run uphill, the Wangenstein occasionally clogs the system. This does not occur in this system because the interpositioned flask is dependent and nothing runs uphill.

An important advantage of this apparatus is that one can see at a glance the character and amount of the drainage fluid. An accurate note can be made of the volume and changes in the suctioned fluid.

We recommend the use of this system in the following conditions:

1. As continuous gastric suction via nasal tube in cases of acute or chronic intestinal obstruction for decompression purposes while observing such a patient or in preparation for operation. We used this setup also in post-operative paralytic or mechanical ileus for decompression. The interposed bottle is observed for the character of the drainage, i. e., if it be bilious, upper intestinal, fecal, etc. Postopera-



Fig. 2. Apparatus in operation.

tive gastric resections, gastro-enterostomies, etc., can be observed for bleeding and retention by noting the character of drainage as coffee grounds, bilious, bright red; also, the amount of residual fluid can be accurately measured.

2. In cases of vesicovaginal fistulae repaired by operation, this apparatus, on slow, mild suction, maintains a dry, contracted bladder and thus aids in the healing of the operative site by constantly keeping the bladder urine free and decompressed.

3. As suction applied in cases of enterostomy and cecostomy this system has been of invaluable assistance. Usually such catheters and tubes do not drain for from twelve to twenty four hours after operation, but with this apparatus enormous quantities of gas and fluid feces have been evacuated and aspirated. Irrigation is carried out by simply placing a Y connection piece to the catheter and lavaging, the return being facilitated by the suction.

4. The apparatus is valuable in maintaining suction and keeping the sinus tract and abdomen free of drainage as, for example, in gastric, duodenal or upper intestinal fistulae. This apparatus is extremely valuable to prevent digestion of skin as illustrated in the photograph. The catheter is permitted to hang just within the wound immediately below the skin surface to prevent leakage over the edge. Entrance of



Fig. 3. Close-up of patient with a duodenal ulcer. Skin anointed with aluminum powder and zinc oxide. Catheter lying just within wound edges.

air into the system does not interfere as it is suctioned through the tubing. We might mention the use of aluminum powder (introduced by Dr. Gruenfeld) to protect the skin from irritation by the discharge. If the catheter should become dislodged, the secretions would run over the abdomen over the aluminum protective layer. Occasionally zinc oxide is anointed over the aluminum powder to act as a bland application to the skin.

5. To provide continuous suction in empyema this system has been efficacious in keeping the cavity relatively empty. Saline or Dakin's solution can be used as an irrigation in this set-up by injection via a T-tube on the drainage tube, or one can permit a continuous drip of an antiseptic with its constant withdrawal.

6. This apparatus is a most valuable help in keeping a postoperative suprapubic cystostomy or prostatectomy dry. These cases are famous for their continuous seepage of urine over wound and onto dressings and bed clothing after removal of the drain, whistle tip or Pezzer right angle catheters. By simply placing a catheter just inside the wound these cases can be kept dry thus saving the time of several dressings each day as well as saving laundering of soiled bed linen. This system provides a satisfactory bed side continuous suction.

CONCLUSION

A modification of the Wangenstein apparatus is described. Some new uses for the apparatus are mentioned.

216 South Kingshighway.

A. M. Harvey and M. R. Whitehill, Baltimore (Journal A. M. A., April 17, 1937), show the value of prostigmin as an aid in the diagnosis of myasthenia gravis. In nine cases in which there was a fairly definite clinical picture the response to the injection of prostigmin was prompt and striking. In one case of doubtful diagnosis there was no response.

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NOVEMBER, 1937

EDITORIALS

MEDICINE AND THE INTERN

The fresh energy and unswerving courage of young medical men have from time to time carried the profession onward to its present high estate. In the field of pure science, in the application of the products of research to the bedside, youth has been largely responsible. His vigor and his intellect have contributed to the alleviation of human suffering. No less have these self same qualities contributed to the advancement of the state of medicine itself, to establishing its part in the social scheme of things.

Membership in the medical society offers definite advantages, sometimes intangible it must be admitted, to the man qualified by study and recognized by law as competent to minister to the sick. The medical society, in turn, depends upon its young men to further its purposes, to establish it as a cohesive, forward looking organization keenly alive to the social and economic problems of the times. At the moment certain agencies seem bent upon the destruction of medicine as it now exists but we seriously doubt if the threatening specters which seem to assail it are any more numerous or any more awesome than those which faced it ten or twenty or a hundred years ago. Even though it be admitted that the profession is confronted by specters from without, that was so from the beginning.

And at each belabored threat youth took counsel with age, met the problem and carried on. Today the real dangers to the profession seem to come from without in a form which has been made familiar through the ceaseless discussion of social security. From within has come a united front, a massing of the profession determined upon a controlling voice in the determination of its destiny and in the destiny of those to whom it looks to carry on.

Organized medicine has done much for the intern; it has seen to it that he received his school-

ing in a university adequately equipped to teach the science of medicine; it has seen to it that opportunities for internship have been offered him in institutions properly organized to continue his education. It is fitting and proper that the intern should be among those most anxious to carry on for the sake of his immediate successors.

This issue of THE JOURNAL is dedicated to the interns of the state. They have contributed largely to its preparation in the offering of original articles devoted to subjects of special interest to other interns. It may be considered as an official invitation to interns to take notice of organized medicine, to become a part of it, to join in the ceaseless task of advancing the profession and themselves, to maintain the integrity of the practitioners of the art proclaimed by Hippocrates and glorified by Osler.

For each of its constituent societies and for itself the Missouri State Medical Association bids cordial welcome to each intern, invites him to become part of it through affiliation with his local medical society, to mingle his destiny with its traditions and aspirations.

THE VIRUS OF INFLUENZA

Influenza has ranged the world since 1510, manifesting itself in virulent pandemics as well as in mild and localized outbreaks. Because it is transmitted largely before the development of clinical symptoms, control by isolation of infected persons is not likely to prove valuable. Yet the tremendous importance of some method of preventing a disease that may involve every second person in relatively large population groups is obvious. The fact that the great pandemics appear about every thirty years suggests the likelihood of an induced immunity developing in those persons who contract it. This clinical observation may serve to introduce the noteworthy contribution to the subject now being made by the Pasteur Institute of Lenin-grad.

No single bacterium has been definitely shown to occupy a causal relationship to the disease. During the latter part of the last century Pfeiffer described a bacillus which is found in frequent association with this infection along with many other contaminations of the human upper respiratory tract. Still, all of the usual parasitic bacteria of the upper pharynx can usually be recovered from infected and normal persons at the time of an epidemic. A virucidal substance has been suggested from time to time as being responsible for the clinical manifestations of influenza but only recently has convincing proof of this possibility been brought forward.

Smorodintseff and his collaborators¹ caused human volunteers to inhale spray from broth cultures of Pfeiffer bacilli but failed to produce the disease in a single case. Furthermore, the reaction manifested in these instances was accompanied by a leukocytosis instead of a leukopenia, seemingly conclusive proof that the one bears no relationship to the other.

Adopting the method which had failed to prove the virus nature of the disease in other hands Smorodintseff et al² collected nasal washings from persons ill of influenza in the Leningrad epidemic of 1936. These were twice inoculated into ferrets; at the height of the disease in these animals pharyngeal and nasal washings from them were inoculated into mice. The latter developed bronchopneumonia of the influenzal type. The striking fact about this part of the experiment is that the lung tissue was shown to be free of bacteria, that the virus of itself appeared capable of activating and sustaining a pneumonia.

Other experiments showed the essential similarity between the virus obtained from persons stricken in an earlier epidemic in London with that of the present epidemic in Leningrad. Immunological assay strengthened the evidence pointing to the similarity of the two viruses. The virus could be inactivated by mixing with the serum of a person recovered from influenza, the blood containing antibodies brought forth in the natural reaction of the body to the disease. That sera of some persons who had never had clinical influenza inactivated the virus is not to be wondered at inasmuch as immunity had undoubtedly developed in them through repeated exposure to small quantities of the virus. Such an observation explains the reason that not every person in a community in the grip of a pandemic is stricken by this illness.

A rather heroic method was used to prove that the virus recovered in the nasal secretions was the agent which of itself was capable of producing all the clinical manifestations of the disease. Since the lungs of mice dying of the disease were practically sterile for bacteria they were ground up in saline so that the final product consisted of a 10 per cent emulsion of lung. Seventy-two human volunteers submitted to breathing the spray created by pumping air through this solution for periods varying up to one hour. It is estimated that they inhaled several hundred thousand times the minimal lethal dose for mice.

About a third of these volunteers developed

the symptom complex ordinarily associated with influenza; about a fifth of them developed the typical clinical picture of the disease including a significant leukopenia with eosinopenia and monocytosis. Eighty-seven per cent of the mice inoculated with mixtures of the original virus and the serum of these volunteers died if the volunteer developed the disease while in the case of those animals inoculated with serum from volunteers not developing the disease only 41 per cent died. As might be expected the activation of the infection induced higher serum antibody titers.

The virus used in these experiments was seemingly of such low infectivity that cross infections, purposely sought after by members of the medical personnel assigned to the care of the sick individuals, could not be produced. The infecting agent disappeared from the nasal secretions of the infected persons with remarkable speed. Nevertheless, high concentrations of the nasal washings obtained within a few hours of the inoculation of the volunteers reproduced the sterile consolidation of the lungs of mice which Smorodintseff considers among the most typical characteristics of the virus. Since symptoms did not ensue in susceptible individuals for two or three days after the initial inoculation with virus the cause of the relative non-infectivity of persons acutely ill with influenza becomes clear. In each detail these carefully controlled studies seem to bear out what is known of the clinical entity, influenza.

In only a single respect were these investigators unable to correlate their experimental results with known clinical manifestations. In the epidemic of 1936 from which they obtained their virus the number of saprophytic organisms present in the nose and throat increased tremendously as the disease advanced; among these organisms which thus gave notice of their presence was the Pfeiffer bacillus, sometimes mistakenly thought to be the causative agent of the disease. In their experimental cases no similar multiplication of the saprophytes could be observed, even when they existed in large numbers prior to inoculation.

Smorodintseff sees in his experiments the possibility of producing artificial immunity to influenza in the population at large by permitting them actively to inhale droplets of the attenuated virus. If further investigation bears out the seeming harmfulness of the method as applied to large groups of persons a notable advance in the management of this troublesome disease will have been made. Perhaps before the next pandemic which should come about 1948 an effective method of control will have been perfected. In the meantime it would appear logical to treat the more toxic cases of

1. Smorodintseff, A. A., et al: Clinical and Laboratory Investigations on Volunteers Infected With Pfeiffer's Bacillus, *Lancet* **2**:1381, 1936.

2. Smorodintseff, A. A., et al: On the Etiology of the 1936 Influenza Epidemic in Leningrad, *Lancet* **2**:1383, 1936; Investigations on Volunteers Infected With the Influenza Virus, *Am. J. M. Sc.* **194**:159, 1937.

influenza with transfusions of blood taken from persons who have recovered from the disease.

PHYSICIANS AND LOCATIONS

Supply and demand is just as important a problem in the medical field as in the economic field. It is often as disregarded in medicine as in economics. Some communities have so many physicians that none can exert his full usefulness nor earn sufficient livelihood. Other communities do not have sufficient medical care and suffer accordingly. Many communities have come to depend on cultists in case of illness, and in most cases this situation exists in localities where for some time there have been few physicians.

The Association is attempting to meet this problem by acting as a clearing house through which communities in need of physicians and physicians desiring locations may gain contact. It is felt that this can be a great service, not only to the community and the young physician starting in practice or the practicing physician who desires a new location, but to the whole of organized medicine. Adequate medical care to all the people has been the cry of all opposed to medicine as it is practiced today and proper distribution of able physicians will answer this demand and do much toward withstanding the attacks on organized medicine.

Several physicians have been aided in selecting locations and it is hoped that the Association will have the full cooperation of all members in reporting openings and of new physicians in reporting their desire for a location. Only in this way can this work gain real success.

OCCUPATIONAL THERAPY

Twenty years ago at Clifton Springs, New York, a small group of forward looking individuals organized the National Society for the Promotion of Occupational Therapy. It was natural that an organization which had for its purpose the dissemination of means for occupying the leisure time of hospital sanatorium inmates should not have met with ready reception. Sewing, weaving, carpentry, these and similar projects designed to lessen the tedium of institutional existence seemed a far cry from the administration of medicines for the relief of disease. Today that pioneer group of men and women have expanded their activities into national proportions. They work in close harmony with the American Hospital Association and with the American Medical Association. For it has been demonstrated beyond doubt that occupational therapy does play a signifi-

cant rôle in the rehabilitation of the sick individual.

Providing the patient with a few pieces of thread and cloth or with some dried reeds does much more than enable him to pass what might otherwise prove dreary hours and days. It may not teach him a new method of earning a livelihood nor need it give him a hobby which he can carry on when he leaves the hospital. In some instances, it is true, the patient may develop a leisure time avocation into a full time vocation. But that is neither the spirit behind nor the motive of occupational therapy. By keeping his hands busy, by giving him an opportunity for accomplishment, by diverting his mind, by encouraging community activity, this new part of the hospital routine may actually speed healing. It is a method of treatment worthy of wider employment.

Under ideal circumstances, of course, the presence of a person trained in occupational therapy is to be desired. Such an individual will be able to discover special forms of activity which will appeal even to the most indifferent patient. But even in the absence of a skilled worker or until one can be provided ordinary ingenuity on the part of all those connected with an institution for the sick can go far in providing those forms of activity which will develop within the patient a feeling of satisfaction and of accomplishment. Even if the speed of healing is not actually increased, the unpleasantness of confinement may be mitigated.

Those ladies who perpetually find pleasure in ministering to the sick may be called upon to provide old materials from their attics with which the patient may divert his mind by keeping his fingers busy. The natural inventiveness of the patient, once he is shown the way, will often uncover new avenues of occupational therapy to be followed either by one individual or by a group of individuals, bring to the fore hidden talents which will enliven the atmosphere of an entire ward. Such activities may change the cheerless, depressing character of the institution from one presenting some of the aspects of a prison to one presenting some characteristics of a happy holiday, even though one's presence there be in a measure enforced by illness.

Some of the hospitals in Missouri are already well equipped with occupational therapy materials and staffs. They are to be commended for the interest which they have shown in the emotional welfare of their patients. But there is room for extension of this beneficent activity. Other institutions, even though they be under the necessity of depending on volunteer workers in the beginning, should see to it that they permit their patients the advantages of this important nonmedical treatment.

In a larger sense, of course, occupational therapy cannot be considered as nonmedical for anything which contributes to the well being of the patient is really medical in nature. Certainly there is nothing medical about a radio in the patient's room; yet experience has shown the radio a boon to the sick and ailing. The provision of books and magazines from a hospital library for the benefit of patients cannot be considered as the administration of medicine; yet experience has shown the undoubted value which such a service has for the patient. In the same sense physicians have been made increasingly aware of the usefulness of occupational therapy, of the dull hours that it turns into pleasantly productive activity, of the galling restraint which it removes. Twenty years have demonstrated the benefits of this form of treatment; it deserves the privilege of being allowed to demonstrate its worth in all of our hospitals. The National Society for the Promotion of Occupational Therapy deserves the continued and unremitting support of the medical profession.

THE FALL CONFERENCE OF THE KANSAS CITY SOUTHWEST CLINICAL SOCIETY

The fifteenth Annual Fall Clinical Conference of the Kansas City Southwest Clinical Society held in the Municipal Auditorium, Kansas City, October 4 to 7, was an outstanding success from every standpoint. The registration exceeded all expectations and an analysis revealed guests present from seventeen states and two foreign countries. The entire program, both intensive and interesting, attracted large audiences at each session. The morning scientific sessions consisted of medical and surgical symposia and each symposium was concluded by a lecture from one of the fourteen distinguished guests. The afternoon scientific sessions, held in the Little Theatre of the Auditorium, were devoted entirely to addresses by guests.

The guest speakers were the feature attraction at the round table luncheons held daily at the President Hotel. On October 4, Father Alphonse M. Schwitalla, Dean of St. Louis University School of Medicine, addressed the luncheon group on "The Influence of Economic Factors in the Medical Profession in the Future." The following day Dr. Alfred E. Barclay, Oxford, England, presented an interesting talk on "It Is Very, Very Wrong to Doubt What Nobody Is Sure About." Dr. George Norberg, Kansas City, and Dr. H. L. Kretschmer, Chicago, spoke on Wednesday. Dr. Ferris Smith, Grand Rapids, Michigan, and Dr.

Waltman Walters, Rochester, Minnesota, addressed the luncheon on Thursday.

A large audience attended the public health meeting in the Music Hall of the Municipal Auditorium on Tuesday evening. Dr. Ira H. Lockwood, Kansas City, President of the Southwest Clinical Society, presided at the meeting. In a most entertaining manner Dr. Burris Jenkins, Kansas City, discussed "The Laymen's View of the Medical Profession." Dr. Robert A. Strong of Tulane University of New Orleans talked on "Preventive Pediatrics" and Father Alphonse M. Schwitalla, St. Louis, spoke on "The Patient and His Doctor."

Entertainment included several cocktail parties at the homes of Kansas City physicians, a stag smoker at the Hotel Kansas City on Tuesday evening, medical alumni dinners on Wednesday evening and a dinner for visiting guests was given by the Kansas City Society of Ophthalmology and Otolaryngology on Thursday evening. The Ladies' Committee entertained the wives of the visiting guests and their social calendar consisted of a book review and luncheon at the Kansas City Club, visits to a foreign doll studio and to various antique shops.

The Conference this year was considered one of the most interesting and attractive that the Kansas City Southwest Clinical Society has ever presented. The success of the meeting unquestionably was due to the capable work of the committees and to the two great, untiring leaders, Dr. Ira H. Lockwood, President, and Dr. J. E. Castles, Director of Clinics. The medical profession of Missouri congratulates the officers of the Kansas City Southwest Clinical Society upon the presentation of such a constructive program and for bringing to Missouri such a large number of distinguished physicians.

COMMONWEALTH FUND HOSPITALS

The North Mississippi Community Hospital, Tupelo, Mississippi, which was opened on October 3, is the eighth hospital to be built with the aid of the Commonwealth Fund of New York, which is undertaking to provide one new hospital each year for a predominantly rural community which will agree to meet its share of costs and to run the institution in accordance with generally accepted standards. The ninth in the group is now under construction at Ada, Oklahoma, and the tenth has been awarded to the community centering in Provo, Utah. The recently completed hospital at Tupelo is a modern, fireproof, well equipped fifty bed hospital held in trust for the public, open to all qualified physicians and designed to serve the sick without discrimination.

Communities needing a fifty bed hospital are required to raise from \$40,000 to \$60,000 for their share of the capital cost and must provide in addition a site with service connections and from \$10,000 to \$15,000 to meet the deficit of the first year's operation. The Fund furnishes plans, specifications and architectural supervision for the construction, and not less than \$200,000 as a contribution toward capital costs. Ownership and administrative responsibility are lodged in a local corporation, organized not for profit, which contracts with the Fund to operate the hospital in agreement with specified standards. These standards are established to guarantee its integrity as a community institution and to justify its approval by the American College of Surgeons.

Hospitals founded under this program are now operating in Murfreesboro, Tennessee; Farmville, Virginia; Glasgow, Kentucky; Farmington, Maine; Wauseon, Ohio; Beloit, Kansas, and Kingsport, Tennessee.

NEWS NOTES

Dr. Ira H. Lockwood, Kansas City, was elected first vice president of the International Congress of Radiology at the session held in Chicago, September 13 to 17.

Dr. August A. Werner, St. Louis, spoke before the St. Louis Society of Orthodontists on October 13 at the University Club. His subject was "The Influence of Endocrines and Vitamins Upon Teeth and Supporting Structures."

Dr. H. I. Spector, St. Louis, spoke at a meeting of the Trudeau Club of St. Louis on October 7 at the Medical Society Building, St. Louis. His subject was "Impressions Gained From Attending the International Conference on Tuberculosis."

Dr. Nelse F. Ockerblad, Kansas City, will deliver an address at the meeting of the Southeastern Branch Society of the American Urological Association in Birmingham, Alabama, November 5 and 6. He will speak on "Surgery of the Human Ureter."

The Missouri Tuberculosis Association met in Jefferson City October 15 and 16. Physicians who appeared on the program were Drs. H. F. Parker and John Williams, Jefferson City; Dudley S. Conley, Columbia; R. H. Runde, Mount Vernon, and George D. Kettelkamp, Koch.

The title of *Colorado Medicine*, the official publication of the Colorado and Wyoming state medical associations and the Colorado Hospital Association, will be changed to *Rocky Mountain Medical Journal* with the January, 1938, issue. At that time the Utah State Medical Association will join in sponsorship of the publication. Ownership of the journal will remain with the Colorado State Medical Association.

The Pan American Medical Association will hold its seventh annual cruise congress from January 15 to January 31. The "Queen of Bermuda," chartered for the trip will leave from New York. Stops will be made at Havana; Port-au-Prince, Haiti; Trujillo City, Santo Domingo, and San Juan, Puerto Rico. Scientific papers will be read on shipboard and papers and demonstrations will be presented in the various cities where the cruise will stop. Among physicians presenting papers is Dr. Charles C. Dennie, Kansas City. Dr. Joseph Jordan Eller, 745 Fifth Avenue, New York, is director general of the association.

The American Board of Obstetrics and Gynecology will hold its next examination for group B candidates in various cities of the United States and Canada on February 5. Applications for admission to this examination must be filed on an official application form in the office of the secretary sixty days prior to the examination. The general oral, clinical and pathological examinations for all candidates of groups A and B will be conducted by the entire board on June 13 and 14, 1938, in San Francisco. Application for this examination must be on file before April 1. Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania, is secretary.

The ninth Gorgas Memorial Essay Contest has been announced by the Gorgas Memorial Institute, 1835 Eye Street, Northwest, Washington, D. C. The essay contest is an annual feature of the program of personal health education and participation is restricted to students in the third and fourth years of high school. A bronze Gorgas medal is awarded for the best essay written in each school and \$10 for the best essay in each state. The national awards are, first prize, \$500 and a travel allowance of \$200 for a trip to Washington to receive the prize; second prize, \$150, and third prize, \$50. The subject for this year is "The Achievements of William Gorgas and Their Relation to Our Health." The dates of the contest are October 21, 1937, to January 21, 1938. Full information concerning the contest may be found on school bulletin boards or can be obtained from the institute.

The Southeast Missouri Medical Association held its sixty-first annual session at Fredericktown, October 12 and 13. About sixty physicians attended, including Dr. George W. Vinyard, Jackson, the only living charter member. The society was organized sixty years ago last April. Dr. W. Harry Barron, Fredericktown, was installed as president and Dr. H. M. Henrikson, Poplar Bluff, was elected president-elect. Dr. M. H. Shelby, Cape Girardeau, was elected corresponding secretary to succeed Dr. John D. Van Cleve, Malden, who had served for six years. Dr. Van Cleve was elected treasurer to succeed Dr. Paul Baldwin, Kennett. Dr. R. C. Kitchell, Sullivan, was reelected recording secretary for his fourth year. Poplar Bluff was selected for the 1938 meeting. A number of interesting and valuable papers were read and discussed by the physicians of the southeastern section and physicians from St. Louis, Fulton and Columbia.

The following members have recently accepted invitations of the Committee on Cancer to speak before lay audiences on cancer: Dr. Floyd H. Spencer and Dr. Jacob Kulowski, St. Joseph, spoke before the Woman's Club of DeKalb on September 29. On September 22 Drs. W. E. B. Hall and James O'Donoghue, St. Joseph, addressed the Mercer County Home Economics Club at Princeton. Drs. L. W. Paul and E. Kip Robinson, Kansas City, spoke before the Sedalia Sorosis Club at Sedalia on October 11. The Rose Fanning Parent Teachers Association of St. Louis had as speaker on October 15, Dr. C. T. Eckert, St. Louis. Dr. M. H. Shelby, Cape Girardeau, spoke before the Women's Council of Jackson on October 23. On November 1 Dr. W. A. Bloom, Fayette, addressed the Woman's Auxiliary to the Linn County Medical Society and the Marceline chapter of the Federated Clubs of Missouri at Marceline.

The Committee on Cancer met at Fulton at the State Hospital on October 4 at 3:30 p. m. The members of the Committee, Drs. Ellis Fischel, St. Louis; Earl C. Padgett, Kansas City, and Dudley A. Robnett, Columbia, were present. Guests of the Committee were Dr. M. Pinson Neal, Columbia; Dr. T. S. Lapp and Dr. Ralf Hanks, Fulton, and Mr. W. Ed. Jameson, President of the Eleemosynary Board. Members and guests were conducted through the new hospital building by the architect and the provisions for cancer patients were inspected. The building provides all necessary requirements for modern cancer therapy. The Committee was told that the Tumor Clinic has reached a point where it is necessary to increase

the staff and revise the operating schedule in order to keep the tumor clinic functioning efficiently. Surgical cases have increased tenfold and a number of cases are now on the waiting list because of the inadequate hospital facilities at the present time. When the new hospital is opened there will be adequate facilities to handle the present intake at the Tumor Clinic. Mr. Jameson said the new hospital building would in all probability be ready for occupancy sometime in January, 1938.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Chappel Bros., Inc.

Vials Chappel Liver Extract (Subcutaneous)
10 cc.

Eli Lilly & Co.

Pulvules Pentobarbital-Sodium—Lilly,
 $\frac{3}{4}$ grain

Suppositories Pentobarbital-Sodium—Lilly,
2 grains

Mallinckrodt Chemical Works

Mandelic Acid

Monsanto Chemical Co.

Sulfanilamide

National Drug Co.

Ampul-Vials Solution Sodium Morrhuate
5% with Benzyl Alcohol 2%, 5 cc. size

Ampul-Vials Solution Sodium Morrhuate
5% with Benzyl Alcohol 2%, 25 cc. size

Ampul-Vials Solution Sodium Morrhuate
10% with Benzyl Alcohol 2%, 25 cc. size

Mixed Grass Pollen Antigen-National

Sulfanilamide

Tablets Sulfanilamide, 5 grains

Sharp & Dohme

Propadrine Hydrochloride

Propadrine Hydrochloride Capsules, $\frac{3}{8}$
grain (0.024 Gm.)

Propadrine Hydrochloride Nasal Jelly,
0.66%

E. R. Squibb & Sons

Grasses Combined Pollen Allergen Solutions
—Squibb, 5 cc. vials

Ragweed Combined Pollen Allergen Solutions—Squibb, 5 cc. vials

The following article has been accepted for inclusion in the List of Articles Accepted by the Council But Not Described in N. N. R. (New and Nonofficial Remedies, 1937, p. 483):

The Dermo Co.

Casil Protective Skin Creme

Graduate courses for training in the various phases of control of venereal disease have been

instituted by the Western Reserve University, Cleveland, Ohio, under authority of the United States Public Health Service and the Ohio State Director of Health. These courses will be open without fees to health officers and to physicians cooperating with state and local health departments in the states of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota, but the number who can be admitted is limited. The course may be entered at any time when a vacancy exists, usually for a duration of three or four months or longer. Visitors may also be admitted for shorter periods if they can be accommodated. The training will be informal and adapted to the individual needs of those taking the course. To a clinician in a venereal disease clinic much clinical material is available and that portion of the training will be stressed. For the educator in a state health department, in addition to the clinical course, source material for talks to both lay and professional groups will be available and the student will be expected to prepare varied lectures. For the health department officials, in addition to these features, case finding, case holding and morbidity reporting will be discussed more fully. Physicians who desire to take these courses should apply through their state health department to the Ohio State Director of Health. Application blanks can be obtained by addressing Dr. C. C. Applewhite, Regional Consultant for the United States Public Health Service, U. S. Court House, Chicago, Illinois.

OBITUARY

LEROY WORTH BAXTER, M.D.

Dr. Leroy W. Baxter, Joplin, a graduate of Rush Medical College, Chicago, 1906, died of coronary thrombosis at the Freeman Hospital, Joplin, September 25, aged 56 years.

Dr. Baxter was born in Columbus, Kansas. After completing his medical studies he began practice in general surgery in Columbus, Kansas. He did postgraduate work in Berlin in 1911 and 1912. In 1929 following a postgraduate course in urology at Johns Hopkins University he located in Joplin where he remained in practice until the time of his death.

The Jasper County Medical Society adopted the following resolution on his death:

WHEREAS, It has pleased the Great Physician to remove from our midst Dr. Leroy W. Baxter, be it

Resolved, That in his being taken away this Society has lost one of its most active and honored members, and the community a progressive and beloved citizen, and be it

Resolved, That we express our sympathy to the family and direct that a copy of these resolutions be spread on the minutes of the Society and a copy sent to the family of Dr. Baxter.

Dr. Baxter is survived by his widow, Mrs. Mabel Baxter, and one son, Worth Baxter.

Books for Leisure Moments

Many of the interns who read this issue of THE JOURNAL will shortly finish the period of training which is designed to prepare them for the difficult and unremitting task of ministering to the sick. Soon they will leave the well-appointed surroundings of the medical school and the hospital to enter upon the actual practice of medicine. No longer will sterilized instruments or vast amounts of dressings come readily to hand. No unseen brain will see to it that each of the complicated wants which are necessary to the treatment of disease are provided if not ready for the asking. The physician, no longer intern and part of a vast institution where others are ever ready to serve him, must depend upon himself. Perplexing problems will assail him as he plans the preparation of his office. For these reasons "The Business Side of Medical Practice" (Saunders) by Theodore Wiprud may prove just as important as the stethoscope which he will take out of the hospital with him.

Mr. Wiprud is well prepared to advise physicians on the business side of practice for he has served as business manager to a group of physicians and as executive secretary to the Medical Society of Milwaukee County. At the present time he is Lecturer in Medical Economics at the Marquette University School of Medicine. He writes simply, clearly and to the point. He is concise but not to the extent that the reader is left wishing he had elaborated just a little more on some particular phase. He is systematic and above all else he insists upon giving not alone sound advice but also the reason for that advice.

Of all the irksome tasks of a hospital the keeping of records is apt to prove one of the most irksome to the intern. The natural inclination to forget records, to depend upon memory, is all too easy to understand. Of course, in the early years of his practice the probability is that the doctor will have even more time than he needs to keep his records up to the minute; whether this plethora of time will continue with the passing years is something which even Mr. Wiprud cannot answer for while he discusses the ways of building up a practice he does not seem to know of any infallible prescription which can be compounded for the purpose. But he does insist that adequate records are a vital part of the physician's office equipment.

On the matter of personality which some think all important in the life of the medical man Mr. Wiprud says, "No physician need feel that success is outside his grasp because of his personality. If he will develop what he possesses, the response of people who come to him will be prompt and gratifying."

The question of location, whether in a metropolitan area or in a rural district, is fairly dealt with. Advantages inherent to either choice; the disadvantages of each are presented. The arrangement of the office, the choice of an office assistant, the handling of accounts, all of these come in for the discerning consideration which their importance demands. The rights of the doctor in court and the part that he must play in the processes of the law are faithfully covered.

In addition to these questions which bear rather directly upon the immediate problems which confront the physician either locating or relocating his office, chapters are devoted to the preparation of manuscripts, to the delivery of addresses before both lay and professional groups, and to the proper conduct of any assembly over which the physician may be asked to preside.

This small volume of 169 pages will be found eminently practicable by any physician now in practice; is

likely to prove of particular value to the intern who will shortly leave the splendid appointments of the hospital to equip for himself a little place where he may carry on.

B. Y. G.

During the last few months certain books have been reviewed in this column which illustrate the changing attitude taking place in this country toward sexual expression. Now we have Max Hodann's *History of Modern Morals* (Wm. Heinemann, London), an encyclopedic review of the development of these present concepts, culminating in a doctrine of free living as well as in the recommendation for a complete metamorphosis of the attitude of the state toward the products of that living. While he does not expressly endorse the platform upon which Dr. Leunbach ran as candidate for the Danish Parliament in 1935, Hodann apparently embraces it as the means by which the greatest happiness and good may be achieved. Leunbach advocated the abrogation of all laws limiting the freedom of normal and mutual sexual experience; the removal of all compulsion with regard to marriage or divorce with the corollary that the state take over the costs of rearing children; the expansion of child care under direct control of the state; a fight against unemployment and inadequate housing; complete equality of men and women, economically, socially and sexually; prophylaxis against venereal disease and the liquidation of prostitution. Finally, Hodann urges a campaign for a socialist community.

It is a little difficult to understand how the creation of a socialist state will solve the sexual problems of the universe. The author is ardent in his admiration of the Russian attitude toward sex although he condemns the recent decree limiting abortion; he is extremely antagonistic toward the Nazi regulations of sexual life, toward the whole Nazi movement. But aside from its strong political and social bias the book is likely to prove significant for the reason that it seeks to reconcile the problems of the individual in a society repressed by dogma and authority and cannot.

The first chapter is devoted to the exposition of generation from the biologic point of view reaching its climax in the statement that "the sexual activation of re-animation of an organism or an individual means their all-round activation, bodily and mental. The curve of genital efficiency in individuals and their curve of social and professional efficiency are almost congruent." The succeeding chapters are directed toward the contradictions and cruelties which have grown out of the sexophobia of the nineteenth century and the effect of that peculiar legacy upon twentieth century men and women.

The second chapter treats of those who are different. It embodies a strong plea for the utmost consideration for those persons. Hodann embraces the opinion that homosexuality is almost always an inherited defect of the germ plasm, indeed he is not certain that it can be called a defect. He urges that the homosexual should be treated with indifference, that he should be regarded like other members of society, that he is not harmful either to himself or to others. In the third chapter Hodann writes of the fight against venereal disease. He favors the abolition of prostitution believing that thereby infected persons will seek treatment of their own volition at free clinics and dispensaries. If there were no prostitutes to act as foci of infection the incidence of venereal disease would rapidly decline; he estimates the incidence of syphilis in Russia as 7.68 per thousand in 1913 as compared with 2.47 per thousand in 1931 after the abolition of prostitution. In Moscow in 1914, 57 per cent of all fresh venereal infections were

communicated by prostitutes while in 1931 only 9.8 per cent of fresh infections were so communicated, but we do not know the relative incidence of infection among the general population in those two years.

The next two chapters are taken up with the evolution of the sex consultation center and the development of the birth control movement, all for the purpose of increasing the happiness of married couples since only 15 per cent of them may be said to be unequivocally happy. Hodann advocates the complete dissemination of knowledge concerning sex without regard to the marital status of the inquiring person. He believes that in this manner neuroses will be presented. In support of this theses he points to the absence of neuroses among the savage Trobrianders who are completely without sexual restraint. As might be expected from what has gone before the author envisages a new form of sex instruction to be given the youth of the country. He deprecates the superstitious, tradition-bathed awe with which modern youth receives formal instruction in this subject. He attributes all of the mystery which surrounds this vital subject to the psychology of religious belief and the sense of shame. And finally he leads up to the complete revamping of society which he believes to be necessary that inhibitions and repressions connected with sex may disappear.

Undoubtedly this volume is worthy of study, more particularly at the present time in view of Surgeon General Parran's campaign against syphilis. However the far reaching reforms in the political and economic spheres which Hodann advocates will diminish its value as a source book from which may arise a new and saner attitude toward the complex problems of sex and venereal disease. The first three chapters are excellent for the critical acumen which is brought to bear upon the powerful inherent urge; they are likely to find general acceptance. The remaining chapters are increasingly less likely to receive the acclaim of western peoples.

B. Y. G.

A billion and a half dollars are spent annually in the United States to extoll the virtues (?) of so-called health preparations; the public spends a third of a billion dollars, half the total spent on all medicines, for patent medicines alone. The business of making people think that they are sick, that they need to be beautified or that they need their intestines purified, seems to be a highly profitable one according to Charles Solomon, M.D., in this "Traffic in Health" (Navarre Publishing Co., Inc., New York).

Barnum has been proved right over and over again and this latest addition to the debunking books which flourish in this country and surely accomplish some small good, proves all over again that the public will pay to be fooled. Physicians are seriously concerned over the traffic in proprietary preparations, not because it reduces their income but because it jeopardizes the national health. As a matter of fact, Solomon assures us, the use of these palliatives and poisons sends more patients to the physician, both those made sick by use of advertised products and those made much sicker when they finally discontinue self-diagnosis and self-treatment to seek competent medical advice.

"Traffic in Health" contains all the usual diatribes against shotgun and useless medicines but neither as well organized nor as well written as some of the earlier publications. It is too long, often repetitious though this may have been intentional.

Of greatest concern to the medical profession is the inadequacy of the law to deal effectively with the unscrupulous manufacturers of these dangerous drugs. It may be proved in court that a drug is inimical to health, that persons who have written exorbitant tes-

timonials proclaiming its merits actually were dead at a time that testimonials continued to be published; yet if the manufacturer is sufficiently ignorant he may continue to market his product. Of course he must be careful of the statements appearing on the package containing his cure-all but he may make rather broad claims in his literature, in his radio presentations and in his newspaper advertisements. And the public likes these meaningless encomiums and continue to buy the stuff. Even the notorious Norman Baker, of Muscatine, kept right on curing (?) people of cancer after he had lost his suit against the American Medical Association with all of the attendant unfavorable publicity. True, his monthly receipts dropped from \$75,000 to a mere \$7,000.

The facility with which concerns barred from the use of the mails change their corporate set up so as to be again enabled to mulct the great American Public as well as the legal difficulties inherent to successful prosecution of the patent-medicine racketeers introduces a subject for cogitation by the physician. Under the capitalistic systems of Norway, Sweden and Denmark as well as in Soviet Russia such frauds are not permitted. In neighboring Canada they are unknown because of stringent laws and stringent enforcement of laws. Even the youngest of democracies, Czechoslovakia, permits the sale of no preparation of secret composition. While here, in the oldest. . . .

There are in effect two remedies which may be invoked against the patent medicine evil. The first consists in writing adequate laws on the statute books, developing adequate personnel to enforce them and appropriating sufficient funds from the national treasury to see that they are enforced. Of necessity, a slow, tedious, questionable procedure as witness the emasculation of the Tugwell Bill. There is another method, however. It consists in employing the same media for the dissemination of accurate medical information as are now being employed for the dissemination of the false and misleading claims of the patent medicine vendors, of educating the public against such illogical preparations even as they have been educated in favor of them. Numerous local medical societies as well as the American Medical Association have turned to the radio for the purpose. They are making praiseworthy advances in this difficult field. Other societies are needed to join in the fight. Every medium of effective publicity available to the profession is needed to carry on the education of the public, the ultimate consumer and beneficiary of the knowledge and skill of the profession. Solomon even envisages the time when such instruction can be included in the public school curriculum. Or when a licensing board will determine which products can be sold to persons ignorant of therapeutic principles.

B. Y. G.

The Lifwynn Foundation of New York was organized to study the behavior disorders of the human being. It was to differ from all other psychiatric approaches to the problem of mental disease in that it emphasized the personality inadequacies of the examiner as well as those of the examined. The director of this study is Trigant Burrow, M.D., Ph.D. Over a period of sixteen years he has made careful analyses of his reactions upon the group of his associates and of their reactions upon him. During the course of these experiments he has published numerous papers in the special journals devoted to this phase of scientific investigation. Now he assembles the study in book form under the intriguing title, "The Biology of Human Conflict" (The Macmillan Company, New York). Unfortunately your reviewer was unable to determine from a study of the volume what it was all about; perhaps to understand it one must understand the personality of

the author even as he must understand the personality of the reviewer.

B. Y. G.

It is difficult to decide from a reading of Thesing's *Genealogy of Sex* whether the instinct for self-preservation or for the preservation of the race is the stronger. He writes fascinatingly of the love life of many forms of animal life, unicellular organisms, hermaphrodite creatures, mammals, birds, fish, finally of man himself. The rhythm of life becomes evident under his pen, the periodic recurrence of desire, and the marked changes in physical structure and function, the migrations sometimes of thousand of miles, all these are clearly depicted and explained.

In some of the hermaphrodite forms of animal life a complete sexual metamorphosis may take place either from the effect of hormones or of parasites. In a certain variety of fish failure to find a male may result in a change to the male state. In other varieties several generations may be lived while the parent performs the function of a female; then, seemingly the result of natural life processes, the organism changes into a male, fertilizes other females and acts now as a father instead of as a mother. The single difference in the children of this mother turned father lies in the fact that they are now all females whereas before she (or he) produced children of both sexes. Again, as in the rose aphid, nine or ten generations of insects may be borne, all of them female. But, for some reason not yet clearly divined, when the blasts of winter come, males are again born that the life history of the species may be preserved.

The last chapter of the book, the only one that deals with the sex life of man, is devoted to a recapitulation of Malinowski's observations among the Trobrianders. The natural expression of the sexual instinct in these primitive peoples is delineated as well as the sexual play that occurs among them from the earliest age. In connection with their practices, as well as in connection with all reference to the sexual instinct, Thesing admonishes the reader that "in itself it is neither good nor bad, 'but thinking makes it so.'"

B. Y. G.

GONADOTROPIC SUBSTANCE IN TREATMENT OF ACNE

Of the thirty-nine cases of acne vulgaris that Grace E. Williams and Ruben Nomland, Iowa City (Journal A. M. A., Aug. 21, 1937) treated, 85 per cent of those given gonadotropic substance from pregnancy urine showed moderate to marked improvement, while 78 per cent of the control group given sterile water showed the same degree of improvement. Although menstrual periods became more regular in nearly all the women given gonadotropic substance, they also became more regular in more than half of the patients of the control group. A correspondingly uniform improvement did not occur in the condition of the skin of those whose menstrual periods became regular. There were individual cases in which improvement of the skin paralleled the change from an irregular menstrual cycle to a regular cycle, but there were also individual cases in which this did not occur. The results show a slightly greater degree (7 per cent) of improvement in the acne of the group treated with gonadotropic substance from pregnancy urine compared with the control group. The difference is hardly sufficient, however, to justify the expense and effort of intramuscular administration of the gonadotropic preparation. It would seem that local therapy is the most important factor in the management of acne.

COUNCILOR DISTRICT AND SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November
27, 1936.
Chariton County Medical Society, Decem-
ber 1, 1936.
Ste. Genevieve County Medical Society,
December 15, 1936.
Dent County Medical Society, January 8,
1937.
Lincoln County Medical Society, February
16, 1937.
Benton County Medical Society, February
26, 1937.
Moniteau County Medical Society, March
29, 1937.
Barry County Medical Society, May 14,
1937.
Camden County Medical Society, May 14,
1937.
Morgan County Medical Society, May 14,
1937.

ASSOCIATE EDITORS: COUNCILORS OF THE TEN COUNCILOR DISTRICTS

FIRST COUNCILOR DISTRICT

A. S. BRISTOW, PRINCETON, COUNCILOR
Buchanan County Medical Society

Following a dinner given the Buchanan County Medical Society by Dr. Orr Mullinax, Superintendent of the State Hospital, the Society was called to order by the president, Dr. Charles Greenberg, on September 1 with seventy-five members and guests present.

The applications of Drs. M. E. Grimes and C. B. Davis, St. Joseph, for active membership and Dr. Irwin I. Rosenthal for provisional membership were voted upon and they were unanimously elected.

Dr. Greenberg introduced Dr. J. I. Byrne, St. Joseph, who announced the St. Joseph Clinical Society's Fall Clinic would be held September 21, at the Moila Country Club.

Dr. Mullinax introduced the guest speakers, Mr. W. Ed. Jameson, President of the Eleemosynary Board, Jefferson City, and Dr. F. A. Carmichael who spoke on "The Outlook of Mental Therapy."

Dr. Greenberg thanked Dr. Mullinax for the delightful banquet and the meeting adjourned.

O. EARL WHITSELL, M.D., Secretary.

SECOND COUNCILOR DISTRICT

H. B. GOODRICH, HANNIBAL, COUNCILOR
Randolph-Monroe County Medical Society

The Randolph-Monroe County Medical Society met on September 14 at the Public Library in Moberly.

Dr. William J. Stewart, Columbia, Director of the State Crippled Children's Service, spoke on "The Aftercare of Poliomyelitis." He also explained the work of the Service.

The following members and guests were present: Drs. William J. Stewart, Columbia; R. A. Woods, Clark; G. M. Ragsdale and M. C. McMurry, Paris; F. L. Harms and G. H. Hawkins, Salisbury; L. O. Nickell, C. C. Smith, Leo Grzeska, L. E. Huber, M. E. Leusley, T. S. Fleming, Billy Fleming, M. P. Hunter, P. C. Davis and M. E. Kaiser, Moberly.

Following the meeting a lunch was served at Miller's Cafe.

M. E. KAISER, M.D., Secretary.

FIFTH COUNCILOR DISTRICT

M. PINSON NEAL, COLUMBIA, COUNCILOR

For the First Annual Fifth Councilor District Meeting held at Columbia on the afternoon and evening of October 21, Dr. Irvin Abell, Louisville, Kentucky, Professor of Surgery at the University of Louisville School of Medicine and President-Elect of the American Medical Association, was the guest of honor and gave a scientific paper on "Retrodysplacements and Complete Prolapse of the Uterus." In an after dinner address on the subject, "Responsibility of the Profession," he spoke upon the organization and activities of the American Medical Association and the functions of many of its important committees, then emphasized the responsibility of the rank and file of the profession in maintaining these activities for the welfare of organized medicine and for the benefit of those needing medical services.

On the afternoon program, Dr. David V. LeMone, Columbia, addressed the group on "Roentgen Therapy in Inflammations"; Drs. Ralph R. Wilson, Kansas City, and Quitman U. Newell, St. Louis, spoke on "The Indications for Birth Control Practice," and Dr. Dudley A. Robnett, Columbia, discussed "Congenital Pyloric Stenosis."

Dr. Dudley S. Conley, Columbia, President of the Missouri State Medical Association, was unable to attend and participate in the meeting because of the meeting of the Association of American Medical Colleges to be held in San Francisco October 25 to 27. A message from him was presented by Dr. W. A. Bloom, Fayette, Vice-President of the Missouri State Medical Association. Mr. Robert L. Finch, Vice-President of the Cardinals' Baseball Club, St. Louis, gave an entertaining after dinner address under the title, "The Passing Show."

Attending the meeting were 108, including five members of the Council, ten special guests, a total of seventy-nine or 43 per cent of the members from within the Fifth Councilor District, and fourteen general officers or committee members some of whom had been in committee sessions at Columbia during the day.

Pursuant to the instructions of the Missouri State Medical Association for lay education on appendicitis, Dr. E. Lee Miller, Kansas City, while in Columbia on October 21, addressed 650 members of the student body and faculty of the Hickman High School and 765 members of the faculty and student body of the Jefferson Junior High School and gave a 15 minute radio address over KFRU Broadcasting Station. Dr. Irvin Abell addressed the faculty and 360 students at Christian College and the faculty with 1200 students at Stephens College.

Boone County Medical Society

The Boone County Medical Society met October 5 in the Tiger Hotel ballroom at 6:30 p. m. Guests included representatives from neighboring counties, the entire personnel of the medical school and students and a number of dentists. After an excellent buffet supper served to about sixty members and guests the meeting was called to order by the president, Dr. W. O. Fischer, Columbia.

Dr. M. Pinson Neal, Columbia, speaking for the program committee, discussed briefly the proposed meeting of the Fifth Councilor District to be held October 21 in the afternoon and evening and which is to be sponsored by the Boone County Medical Society. At the close of his discussion he moved that the Boone County Medical Society invite members of all counties of the Fifth District, the councilors of the various districts and the members of all state committees. His motion was seconded and carried.

Dr. Neal reported that the week of October 19 to 25 was National Pharmacy Week and that one of the local drug stores had requested permission to display the pictures and cards pertaining to the campaign on prevention of appendicitis which had been made and approved by the Missouri State Medical Association. Dr. Neal moved that the Society permit the display of these pictures in the windows of the drug store and the motion carried.

After discussion on defraying the costs of the meeting to be held October 21 Dr. David LeMone, Columbia, moved that the expense be prorated among the members.

A talking motion picture on "Syphilis" which was recently made by the American Medical Association working in conjunction with the United States Public Health Service was shown. This film was complete in every detail having as the principal speakers men of national repute who gave, before the camera, a series of clinics and practical discussions of the problems confronting the average general practitioner in his diagnosis and treatment of the disease. It represented a complete course in syphilology and lasted exactly one and a half hours. It was extremely well received by the audience and in addition to its excellent subject matter, it pointed out the tremendous possibilities of visual education, not only for practitioners but medical students as well.

MAURICE E. COOPER, M.D., Secretary.

SIXTH COUNCILOR DISTRICT

A. J. CAMPBELL, SEDALIA, COUNCILOR

Saline County Medical Society

The Saline County Medical Society held its third quarterly meeting September 15 at the Blosser Home for Crippled Children in Marshall. Dr. R. W. Kennedy, Marshall, presided, with eleven present.

Dr. W. K. Nix, Marshall, was appointed as the Society's representative on the executive board of the county crippled children's organization.

The secretary was instructed to write the local druggists protesting their blatant patent medicine advertising.

The board of censors asked for a postponement until the next regular meeting for a report on two pending applications.

Dr. Dudley S. Conley, Columbia, President of the Association, gave an inspiring and optimistic talk on "Modern Economic Trends."

Miss Nordyne Anderson gave a report on her work

in Saline County in connection with the work of the State Crippled Children's Service.

Dr. William J. Stewart, Columbia, Director of the State Crippled Children's Service, spoke on "The State Crippled Children's Service" and presented several interesting cases now in the Blosser Home.

EDGAR A. BELDON, M.D., Secretary.

SEVENTH COUNCILOR DISTRICT

E. P. HELLER, KANSAS CITY, COUNCILOR

Through the joint efforts of the Program Committee and the Committee on Education of the Jackson County Medical Society and the staff of the General Hospital a profitable day's work for visiting and local members of the profession is now available on Tuesdays.

In a previous report the outline of the course for this fall and winter was given. Thus far a real beginning has been made and once the habit has become established the proponents of the plan feel that more and more out of town physicians will avail themselves of the opportunity to refresh themselves.

Beginning at 10 a. m. with ward walks and clinics, there is something of interest throughout the day for men in all the various fields of medical practice. It is suggested that men desiring to come and knowing in advance what sort of work they wish to follow write to the Committee on Education, 628 Shukert Building, Kansas City. It is further desirable that visitors have with them credentials showing them to be members of the Missouri State Association and their local society. None but members of the profession in good standing are permitted access to these courses.

The Medical Business Bureau, the new credit reporting and collection unit of Jackson County Medical Society, has already proved that there is a place for this type of work in the activities of each county medical society. Although it has been in operation only two months, many accounts have been submitted for collection and recording. Through the Bureau notices, debtors are learning that their medical credit record is now available to all Society members, the notices have produced payments, arrangements to pay accounts and explanations of delays in paying which Society members have been unable to obtain by efforts from their offices. The response has been on old balances of several years' standing as well as current accounts, proving that many persons do not respect a medical obligation until they believe that it will become known to other probable creditors and be detrimental to their community credit standing.

Although the publicity of the Bureau has been limited to the *Weekly Bulletin* and notices to debtors, the lay public is learning that medical credit abuse becomes a permanent record. As the purpose of the Bureau becomes more generally known, it will encourage prompt payment of accounts and respect for the credit courtesies extended by physicians.

EIGHTH COUNCIL DISTRICT

H. L. KERR, CRANE, COUNCILOR

Jasper County Medical Society

The Jasper County Medical Society met for its first regular meeting of the fall at the Connor Hotel, Joplin, September 29. Dr. E. J. McIntire, Carthage, presided.

The committee appointed to investigate the matter of physical examinations of school children in Joplin had no report. The secretary was instructed to write the Joplin Board of Education explaining the situation, asking that the children be instructed to go to their family physicians; that if they were able to pay, a minimum charge of \$1 would be made. The chair requested the secretary to send a copy of the letter to the McCune-Brooks Hospital staff at Carthage so that the same arrangements might be made there.

A committee was appointed to draft resolutions expressing the regret of the Society on the death of Dr. LeRoy Baxter. The committee appointed was Drs. Charles T. Reid, Robert L. Neff and Otto T. Blanke, Joplin. Dr. Jesse Douglass, Webb City, was elected by acclamation to fill the vacancy on the board of censors created by the death of Dr. Baxter.

An application for membership from Dr. William Russell Smith, Carthage, was sent to the board of censors.

Dr. Sam Grantham, Jr., Joplin, presented a discussion on "Surgery of the Shoulder."

Dr. Virgil E. Jeans, Joplin, discussed "Hernia in Infants."

Because of the lateness of the hour the discussion of "Pelvic Tumors" by Dr. C. W. Poor, Joplin, was postponed.

Meeting of October 12

The Society met for dinner in the Connor Hotel, October 12.

The committee on resolutions read the following which was adopted:

WHEREAS, It has pleased the Great Physician to remove from our midst Dr. Leroy W. Baxter, be it

Resolved, That in his being taken away this Society has lost one of its most active and honored members and the community a progressive and beloved citizen, and be it

Resolved, That we express our sympathy to the family and direct that a copy of these resolutions be spread on the minutes of the Society and a copy sent to the family of Dr. Baxter.

CHARLES T. REID,
O. T. BLANKE,
ROBERT L. NEFF,
Committee.

Dr. Karl Menninger, Topeka, Kansas, spoke on "Emotional Factors in Hypertension."

M. H. BLACK, M.D., Secretary.

South Central Counties Medical Society

The South Central Counties Medical Society met at the Arcade Hotel in West Plains at noon for dinner with the following members and guests present: Drs. E. R. Bohrer, E. C. Bohrer, P. D. Gum, J. W. Bingham, A. H. Thornburgh, Scott P. Child and J. M. Thompson, West Plains; H. B. Hull, Mammoth Springs, Arkansas; C. T. Callihan, Willow Springs; Andy Hall, Jr., and O. P. Hampton, St. Louis; W. T. Eudy and Frank Hyde, Eminence; R. I. Davis, Birch Tree; J. B. McDaniels, Summersville; H. G. Frame, A. C. Ames, R. A. Ryan and his son, H. E. Ryan, an attorney, Mountain Grove.

Dr. Andy Hall, Jr., St. Louis, spoke on "Urologic Problems of the General Practitioner" in which he recounted most of the more common developmental defects and diseases of the urinary system and their treatment and showed slides.

Dr. O. P. Hampton, St. Louis, spoke on "Fractures" limiting his talk to Colles; fracture and fracture of the neck of the femur. For the former he advised a plaster splint and demonstrated such a splint made to fit the individual patient and to be removed and reapplied at will. For fracture of the neck of the femur he explained the process of nailing the fragments in position

and the results to be obtained, and showed the style of nail used and roentgen ray pictures of the same in position.

Dr. H. B. Hull, Mammoth Springs, Arkansas, recounted some of his recent experiences with infantile paralysis; he also showed a boy with fracture of the radius near the elbow and roentgen rays of the case.

A vote of thanks and appreciation was given the speakers.

Applications for membership were received from Dr. C. F. Callihan, Willow Springs, and Dr. E. R. Bohrer, West Plains, the latter by transfer from St. Louis. By vote of the Society they were elected members.

It was voted to hold the next meeting at Mountain Grove on December 9 and to discuss the subjects of "Pneumonia" and "Septic Sore Throat." All members were urged to look up these subjects and be prepared to take part in the discussion.

The meeting adjourned at 4 o'clock.

A. C. AMES, M.D., Secretary.

TENTH COUNCILOR DISTRICT

A. H. MARSHALL, CHARLESTON,
COUNCILOR

Perry County Medical Society

The Perry County Medical Society met in the office of Dr. O. A. Carron, Perryville, at 8:15 p. m., October 14. Dr. B. T. Koon, Perryville, presided.

The secretary reported that no word had been received from the county court upon resolutions presented to them in August by the Society asking them for some financial assistance in caring for the indigent sick of Perry County.

An invitation from the Woman's Auxiliary to supply a speaker on some medical topic occasionally at meetings of some of the clubs and organizations was accepted.

Dr. Jerome J. Bredall, Perryville, was appointed to communicate with Dr. M. Pinson Neal, Columbia, regarding a general lecture on "Appendicitis" in the near future to the lay public of Perry County.

O. A. CARRON, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

16th Annual Meeting, San Francisco, 1938

President, Mrs. Augustus Kech, Altoona, Pennsylvania.

President-Elect, Mrs. Charles C. Tomlinson, Omaha, Nebraska.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.
President-Elect, Mrs. Herbert L. Mantz, Kansas City.

The fall board meeting in Columbia, September 23, was unusually well attended with forty-four present, all

but eight of whom were members of the board. Mesdames Walter Kirchner and Willard Bartlett, St. Louis; M. P. Overholser and David S. Long, Harrisonville; W. A. McAlester, Kansas City; M. Pinson Neal and M. P. Ravenel, Columbia, represented the past presidents. Mrs. Charles H. Werner, St. Joseph, presided. Enthusiastic reports were given by the officers and chairmen and many public relations meetings were planned. It was decided to continue mailing *The Bulletin* direct to the members, the expenses to be paid by the auxiliaries.

The October number of *The National News Letter* will contain an article on the Missouri Auxiliary written by Mrs. Charles H. Werner, St. Joseph, president.

The Jackson County Auxiliary had its first fall meeting at the home of Dr. and Mrs. John G. Hayden, Kansas City. The Auxiliary members, with Mrs. Evan Connell, Kansas City, as general chairman, provided an attractive series of entertainment for the wives of physicians attending the fifteenth annual meeting of the Kansas City Southwest Clinical Society.

Auxiliary members will learn with regret of the severe illness of their adviser, Dr. W. L. Allee, Eldon. Their good wishes for a quick recovery are extended to him and their sympathy to Mrs. Allee who has recently lost her mother.

Mrs. C. H. Werner, St. Joseph, state president, has been visiting many auxiliaries this month including those at Springfield, Fulton, Columbia, Brookfield, Jefferson City, St. Joseph and Excelsior Springs. All auxiliaries show interest and a fine spirit of cooperation.

The Woman's Auxiliary to the Saline County Medical Society met for a luncheon on June 30 in the Old Tavern at Arrow Rock in honor of the state president, Mrs. C. H. Werner, St. Joseph, the guest speaker for the meeting. Members and guests met at the home of Mrs. W. M. Bickford, Marshall, at 12 where they were served iced drinks and canapes. There were twenty-five guests. Mrs. Werner gave an interesting and comprehensive report of the American Medical Association Auxiliary meeting at Atlantic City. Mrs. M. P. Ravenel and Mrs. C. M. Sneed, Columbia, were present and made brief talks. Mrs. J. C. Dixon, New Orleans, was also a guest. Mrs. C. W. Caldwell, Slater, president of the Saline Auxiliary, presided at the meeting. This was one of the most delightful meetings ever held by the Auxiliary and it is a matter of pride that they report that only three members were absent.

BOOK REVIEWS

*DIET MANUAL ST. MARY'S HOSPITAL. Compiled by Sister Mary Victor, R.N., B.S., Director of the Department of Nutrition St. Mary's Hospital, Rochester, Minnesota. Rochester, Minn.: St. Mary's Hospital. 1937.

The question, what diet to give, is perplexing. Reference to some of the large compendiums on dietetics is likely to lead to confusion in the mind of the general practitioner. Hence this small volume which is just what its name implies may prove of much assistance. It is simply a compilation of diets used at St. Mary's Hos-

pital, so arranged as to simplify the task of diet prescription. B. Y. G.

*THE CARDIAC GLYCOSIDES. A series of three lectures delivered in the College of The Pharmaceutical Society of Great Britain under the auspices of the University of London. By Professor Arthur Stoll, D.S.C., M.D. (honoris causa). Twenty-Three Bloomsbury Square, London, W. C. 1: The Pharmaceutical Press. 1937.

An erudite account of research into the pharmacodynamics of certain cardiac stimulants, not likely to prove of interest to the general practitioner. B. Y. G.

HISTORICAL NOTES ON PSYCHIATRY (Early Times—End of 16th Century). By J. R. Whitwell, M.B., Hon. Lib., Royal Medico-Psychological Association, Late Med. Supt. St. Audry's Hospital, Melton, Suffolk. Philadelphia: P. Blakiston's Son & Co., Inc. 1937. Price \$5.00.

This new book, as indicated by the title, is a compilation of historical facts with comments. The author has furnished twenty-two references upon which he has drawn for information.

When we go back to from three to five thousand years before the Christian era, and especially to the seemingly highly developed early Egyptian civilization, it is rather difficult to determine just how much was actually known about the practice of medicine. The dawn of a definite cultural refinement, considering especially mathematics, architecture, astronomy and medical science, borders on mythology. The author correctly calls our attention to the close association of medicine with religion and philosophy from the earliest times to the end of the sixteenth century, the period covered by this treatise. This would include the Christian, Hebrew, Mohammedan, Buddhist and other religions as well as the multiple deities of the ancient Greeks and Egyptians. Even today much religious and faith healing may be noted. The author evidently is a Freudian disciple.

As is natural much credit is given to Hippocrates for his knowledge of mental and nervous disorders in addition to his well known profound medical intelligence and good common sense. Yet Pythagoras, about 500 B. C., seems to have had a better conception of the brain and its functions. He is credited with the statement that the brain is the center for (1) reason, (2) intelligence and (3) passion. Furthermore he states that reason is limited to man while the latter two attributes also belong to the lower animals. A great many men practicing medicine and surgery from the time of Hippocrates 460 B. C. to Barrough in 1490 A. D. are cited and their essential contributions to medicine given. Various mental syndromes also are discussed. A considerable amount of space is devoted to epilepsy and the splendid descriptions given to this syndrome by the ancients. It was frequently referred to as *morbus sacer*.

Every student of psychiatry might well review this splendid book which is full of information. Furthermore any physician, surgeon or specialist could enjoy reviewing the book. The investigative mind might ponder the correctness of our present psychiatric nomenclature especially after considering the many systems cited for the past 5000 years by our author.

A. L. S.

* In our August issue we published under the book entitled "The Cardiac Glycosides" comment that should have appeared under "Diet Manual St. Mary's Hospital." Correct listing of both are given.

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HOW BAD IS OBSTETRIC CARE?

NORMAN F. MILLER, M.D.

ANN ARBOR, MICHIGAN

In spite of the abundant information regarding the quality of obstetric care which has become available during the last decade its connotation has not been universally accepted. Judging from the slow progress toward improved care it appears that physicians generally remain unimpressed and methods of clinical practice remain unaltered by the extensive statistical barrage of recent years.

The present campaign for better obstetrics is by no means the first. From earliest times each century appears to have had at least one major movement for improved maternal care. From obstetrics of the primitive peoples with its legendary mysticism and occult visitations to a more rational understanding based on study of animal physiology was a long stride. With the early Greeks came a sounder obstetrics based on deductions from facts unencumbered by superstition. During the third century B. C. the Greek influence began to spread and soon dominated Roman Medicine. Outstanding as a result of this critical Greek influence are the works of Soranus. He showed a wide knowledge of both obstetrics and gynecology and his writings included such subjects as the qualifications of midwives, physiology of menstruation and conception, obstetrical operations, version and embryotomy and, significantly enough, a warning against meddling obstetrics. This work of Soranus probably climaxed an epoch for there followed the dark ages characterized by the belief that sickness was often a personal manifestation of the Diety. As pointed out by Maxwell¹ the fate of pregnant women was particularly unfortunate since early and medieval Christians saw in childbearing the result of carnal sin. Much later, the establishment of medical schools in the eleventh and twelfth cen-

turies and the renewed interest in anatomical studies marked the beginning of the basic sciences in medicine. In the 16th century Ambroise Paré and Roesslin provided the impetus which heralded a reawakening. Improvement now came rapidly. In the 17th century Harvey urged conservatism and objected to "the promptings of the officious young giddy midwives urging the poor women in labor, on her three-legged stool, to employ the expulsive faculty before her time." As further pointed out by Maxwell, Harvey recognized that the safety of the woman depended upon a new understanding of the mechanism of labor. Obstetric history is abundantly marked by contributions from this time on. Smellie, a master of British midwifery, added to our knowledge of pelvimetry and forceps. William Hunter contributed to our understanding of fetal circulation. White, Gordon, Holmes and Semmelweis revealed the cause of sepsis, a high point in the development of obstetrics. The advent of Pasteur, Lister and surgery was also a great boon for it brought an army of scientifically trained men and women into the study of basic principles which were to have a great influence upon obstetrics.

The contributions of the 20th century which largely determine contemporary practice are prenatal care, the discovery of vitamins and internal secretions, advances in chemistry, anti-sepsis, physiology, pathology, roentgen ray, technical procedures and many others, significant among which is the compilation of vital statistics. We cannot see clearly into the future but as things now stand there is reason to believe that the present campaign for maternal welfare may go down in history as one of the most significant, an important reason being the statistical studies which so extensively characterize the age. As a measure for future comparison the voluminous tabulations of recent decades would seem to be of inestimable value. All of this brings us to the crux of this paper; namely, in spite of the factual data upon which the implication of poor obstetrics is based there

¹Read at the 80th Annual Meeting of the Missouri State Medical Association, Cape Girardeau, May 10-12, 1937.

has occurred but little improvement. Why? Since the high maternal mortality rate for America has been clearly established there can be no denying the implication of poor maternal care for American mothers. This is a difficult fact to swallow but it would be even more so were the entire truth known. Our poor rating is based on practical data regarding deaths only and while this is the most important factor it is by no means the only datum upon which quality of obstetric care should be gauged. There is in addition the vast morbidity, not in terms of temperature elevation alone, which is often a trivial affair and may in no way influence immediate recovery or future health, but in terms of additional penalties in the form of physical and mental injury and suffering. Women on the one hand are made to endure beyond their physical capacity or, because of faulty knowledge or poor judgment on the part of the attendant, are subjected to unindicated and unnecessary forced or operative deliveries.

Many women bear the results of mismanagement for the remainder of their lives. But damage to the birth canal, bladder and bowel is only a part of the morbid issue. In addition there are the less tangible and always completely neglected injuries to the nervous system. Certainly our criteria for evaluating obstetrics are too limited. No complete grading can come without more comprehensive consideration of the factors mentioned above. When this is done the gloomy quality of contemporary obstetric care will be greatly intensified.

Many reasons for existing conditions have been given and it is not my intention to make this a review but rather to emphasize certain commonly neglected aspects of the problem.

One explanation of present obstetric care may be that evidence, so generally distributed by obstetric reformers during the last decade, is quite generally ignored.

Secondly, the feeling persists that obstetric care may not be inadequate; that statistics are faulty and misleading. Perhaps there has been too much enthusiasm and too liberal interpretation of statistical data. Perhaps obstetrics is not so bad after all.

Thirdly, it may be that procedures used in clinical practice are faulty. Perhaps the methods generally practiced and widely accepted as modern are sadly in need of revision. We may have become inured to the incriminating evidence and fail to see harm in many of our so-called contemporary advances.

Finally, there is the indifference on the part of the public toward childbearing. Certainly the present campaign for reform in obstetrics has not yet resulted in any notable improvement. Let us therefore consider these factors with the

hope of arriving at a closer evaluation of the quality of obstetric care.

The maternal death rate for this country at large is generally quoted as 6.8 per 1000 live births. The figure for England is 4.1, for France, Denmark and Holland, 2.4. On this basis the hazard of childbearing in America is almost twice as great as in England and three times as great as in France, Denmark or Holland. For those who desire a numerical grading we have a standard comparison. These have not gone unchallenged. The validity of such comparison has been raised more than once. Yet we need not search far for proof of their comparability. In the Children's Bureau Publication No. 229 (United States Department of Labor) Elizabeth Tandy writes the following on the comparability of maternal mortality rates in the United States and certain foreign countries: ". . . the method of assignment in Australia, Netherlands, New Zealand and Scotland is similar to that of the United States and the official maternal mortality rates are directly comparable within a small margin of error; that under the method of Denmark a larger number of deaths would be assigned to the puerperal state and the rate for the United States would be significantly higher than it is now; that under the methods of the other countries included in the study, Canada, Chile, Czechoslovakia, England and Wales, Estonia, France, Irish Free State, Italy, Northern Ireland, Norway and Sweden, a smaller number of deaths would be assigned to the puerperal state and the rates for the United States would consequently be somewhat lower. Second: That differences in methods of assignment are insufficient to explain the high maternal mortality rate of the United States as compared with foreign countries. The official figure of the United States, which in the last few years has exceeded that of every country except Scotland, remains high no matter what method of assignment is used. Even if the method of the country assigning the smallest proportion of deaths to the puerperal state were in use in the United States, the United States figure would still exceed that of all the countries except Australia, Canada, Chile and Scotland. Rates for the United States estimated in accordance with the assignment procedure of the respective countries are, in every instance except Scotland, in excess of and are in five instances more than double the official rates of the countries themselves. No matter what method of procedure is used the United States retains an exceedingly high rate as compared with other countries."

Certainly this study should quell any doubt as to the status of maternal mortality in the United States as compared with foreign countries. But

the statement is sometimes made that America is the great melting pot of the world. With the intermingling of races has come pelvic deformity, large babies and small pelves, disproportion because of larger fetal heads, etc. Doubtless there is some truth in this so let us compare results not with foreign countries but with earlier statistics from our own country. Naturally there are limitations here because data for this purpose does not go back more than twenty-five years. Yet, if available statistics may be accepted at their face value there is seen to be little evidence of improvement during these twenty-five years. Evidence of the excessive hazard of childbearing in America has been established beyond question. Smoldering resentment against the statistical outpouring of recent years should no longer be harbored by any physician for these figures do not lie.

What about the first possible explanation for existing conditions; namely, widespread indifference to the lesson taught by comparative maternal mortality studies? There is reason to believe that this factor plays no small part in preventing more rapid improvement in the quality of obstetric care. The reaction of the medical profession to the poor care implied by the many statistical studies was and is by no means consistent. Many physicians squarely accepted the challenge and inventoried their knowledge and technic with the intention of doing everything possible to improve matters. Still others less interested in obstetrics, except perhaps as a source of income, either deny or ignore the implications and complacently carry on. That this is so is borne out by the extensive and frequent use of harmful and dangerous clinical procedures. The quiet but widespread use of pituitrin, vaginal examinations and manual dilatation is well known. Insidious and pernicious is the habit of publicly condemning and privately condoning these procedures. That satisfaction with existing methods is not always a matter of private thinking is shown by the following excerpts from published articles: "As to vaginal examination, I never intend to do anything but vaginal examinations as long as I have the success I have had." "I have been practicing ten years and have not lost a mother." "I do not see any reason why a man should not make vaginal examinations if he has any surgical conscience at all." "As one who has practiced and taught both obstetrics and gynecology for many years I believe I know what is implied by surgical conscience." But, what about an obstetric conscience? "Then about pituitrin, the product put out now is almost fool proof. I always carry it with me and almost invariably give it at some stage of labor and have never yet had to go back for a postpartum hemorrhage." "Hands

off is poor obstetric practice." "If nature is to have her way why have a doctor at all?" "For we know that digital dilatation of the uterus stimulates and strengthens the pains and shortens labor." "We know that the stretching of the perineal muscles shortens labor and prevents tears in almost every instance—." McCord² has stated that "months of earnest prenatal work can be swept away by one careless vaginal examination," and again, "the average man of mature age now practicing medicine cannot be prevailed upon insofar as I have been able to ascertain, to pay dutiful attention to those details so essential for the successful practice of obstetrics." Reluctant as we may be to believe this statement, evidence is slowly forcing its acceptance. It is high time that obstetricians everywhere, whether they be practitioners or specialists, harken to the cry of reformers and look upon the obvious need for improved obstetrics as something to which everyone can contribute in a very material way.

Another factor determining the quality of obstetric care is to be found in the procedures and methods characterizing modern obstetrics. Are they really advances in the sense that they are better or are they merely something new and therefore looked upon as an improvement or advance? As one intensely interested in the advancement of obstetrics and as a close observer of contemporary obstetric thought and practice I must confess some doubt as to just what reformers would have us include in good obstetric practice. I find it difficult to accept a double standard of quality. Yet the pacemakers in determining trends in obstetrics often teach one thing and practice another. Watchful waiting, patience and non-interference is the policy advised, yet version, forceps and even cesarean section "in the hands of a good man" is safe enough for some one else. Safe perhaps, but can we have sane, sound obstetrics so long as we practice under such flexible standards? The specialist terminates labor by the use of episiotomy and so-called outlet forceps. Not to be outdone, the general practitioner achieves a similar end through the use of pituitrin at the same stage of labor. It is his substitute for forceps, his answer to the cry for shorter labors, less tedious hours for both patient and doctor. While outlet forceps are meeting with increasing approval, the use of pituitrin during labor is condemned in no doubtful terms. If, as the evidence seems to indicate, the use of pituitrin is particularly dangerous for both mother and child then its unwarranted use should be made a misdemeanor. If delivery by means of outlet forceps is desirable then all patients should be permitted to receive its benefits. If it cannot be done in the home then patients should be taken to the hospital. If an obstetric procedure

is safe only in the hands of a well trained person then only well trained men and women should be permitted attendance during delivery. There should be no double standards of medical care. There is no good substitute for surgery in acute appendicitis; why should there be a double standard in obstetrics? If confinement in hospitals is associated with a better prognosis for mother and child that is where babies should be born. The fact that in the past hospitalization has often been an invitation for unwarranted operative interference does not mean that hospitalization is unwise. It does, however, call for much better organization of hospital staffs and a closer supervision of obstetric care. Hospitalization is not the only obstetric principle illogically condemned. The statement has been made that prenatal care leads to meddlesome midwifery and so it does when the physician is inadequately trained in the interpretation of data thus made available to him. This is a condemnation of the man and not of prenatal care. While obstetrics of today appears to be based on sound principles there is abundant reason to believe that a double standard characterizing management of many lesser and some major obstetric situations should be eliminated. In the same breath we are admonished to avoid trouble by not looking for it and condemned for neglecting what only a thirsting curiosity could reveal. Patience, soap and water and noninterference are taught by men who practice an entirely different brand of obstetrics. We are cautioned against meddlesome midwifery on one day and on the next informed of the innocuousness of rupturing the membranes as a means of inducing labor. By reading standard texts we learn that pelvimetry is an important part of prenatal care only to have its value discounted by some distinguished obstetrician. Is there any wonder the majority of physicians see but do not believe, hear but do not heed?

Finally, and in any evaluation of obstetric care, we cannot overlook a most important factor, the patient herself. Physicians do not entirely control any branch of medicine. They may advise or implore but whether or not the patient will follow the advice given is another matter. It is said that the responsibility for better obstetric care rests squarely upon the shoulders of the profession. Generally speaking this may be true but if so it is unique in the field of medicine. We do not hold the doctor entirely responsible for the mortality from other sources. In campaigns for decreased mortality from cancer, tuberculosis, heart disease, etc., the patient factor is certainly not overlooked. The present drive against cancer is most emphatically intended as a spur for an indolent public. I am

not convinced that a large share of our present difficulty is not due to an almost unbelievable indifference on the part of both men and women toward childbearing, the many popular magazine articles to the contrary notwithstanding.

Examples of public indolence are everywhere apparent, i. e., the delay in seeking prenatal care, satisfaction with poor or no antenatal care, indifference toward advice given, the trifling attitude toward confinement on the part of the male particularly and the false sense of values as characterized by the importance attached to other lesser medical and surgical procedures. This trifling attitude on the part of the public does not minimize the responsibility of the physician in any way. He is to blame for plenty and should assume that responsibility. All the same, we gain nothing by minimizing the part played by others. It is high time men and women are made clearly to understand that good obstetrics depends to a large degree upon cooperation. Let us continue to purge our practice of undesirable and harmful procedures but at the same time let us not continue to impress a small thinking public with only our own shortcomings. Let these thinking men and women learn of their responsibility and let them help prod the uninformed to a point where cooperation becomes universal.

Surely there can be no doubt as to the quality of obstetric care. Its many shortcomings cannot longer be questioned. Let us not waste time in secret resentment nor harbor the private conviction that our obstetrics is good. The fact that our mortality is twice as high as in many foreign countries when calculated in accordance with the assignment procedure of those countries is bad enough. Yet if we added to this the true morbidity, not just fever but physical and mental trauma sustained as a result of childbearing, the combined hazard would indeed be disheartening. The quality of obstetric care is bad; let there be no doubt of that. Furthermore, in establishing this unenviable record for the United States the professor, practitioner and patient have all contributed. Improvements have occurred and will continue to occur, but real advance can come only when physicians forsake tradition and habit and make logic and fact their sheet anchor. Every tool and method at our command should be more critically regarded. Improvement can be complete only when the public also recognizes its responsibility and willingly puts its shoulder to the wheel. The verbal chastisement we as practitioners receive will help because our obstetrics is often of miserable quality but this should be only part of the reform objective. The "big shot" specialist is often a generous contributor to both mortality and mor-

bidity and he too must place his house in order if we are to achieve any real degree of hoped-for improvement.

University Hospital.

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BORDERLINE AND ATYPICAL HYPERTHYROIDISM

CYRIL M. MACBRYDE, M.D.

ST. LOUIS

Two classes of patients offer considerable difficulty in the differential diagnosis of hyperthyroidism. One group has elevated metabolic rates with few or none of the manifestations usually suggesting the disease; the other has striking signs or symptoms with metabolic rates within the normal range. Conditions such as fever, cardiac decompensation, pernicious anemia, leukemia and malignant disease may cause elevation of the metabolic rate. All the so-called classic signs may be present in the absence of true thyrotoxicosis. Exophthalmos, for example, may be congenital; tachycardia may be caused by infection, anemia or heart disease, and tremor may be only a nervous manifestation. Nodular or diffuse thyroid enlargement may be present without hypersecretion.

It is important to detect nonthyroid patients in the first group to prevent unnecessary thyroid surgery. Patients in the second group with true hyperthyroidism should have treatment even though the basal metabolism is not above the usually accepted normal limit of plus 10 per cent.

Borderline and atypical hyperthyroidism are grouped together in this discussion because it is seldom that a severe hyperthyroidism will go unrecognized even if the chief clinical manifestations are quite unusual. On the other hand, borderline or mild thyrotoxicosis, even when uncomplicated, may be difficult to diagnose, and when there are complications or unusual features the clinician's task may be difficult indeed.

Patients with atypical hyperthyroidism may be divided into the following two main groups: First: "Masked" hyperthyroidism in which the thyroid signs are not truly atypical but in which some other disease or symptom complex assumes the spotlight in the clinical picture, thus

obscuring the underlying hyperthyroid manifestations. Second: Patients with truly atypical hyperthyroidism. Two subgroups may be distinguished; (a) those in whom disturbances in one system are particularly prominent and the symptoms and signs suggest a disease of that system; (b) those in whom some or most of the so-called classic features are lacking.

Among the nonthyroid conditions resembling thyrotoxicosis neurocirculatory asthenia is probably the commonest. This usually occurs in young persons and some enlargement of the thyroid may be present. Nervousness, fatigue, palpitation, dyspnea, tremor and emotional imbalance may appear both in hyperthyroidism and in patients with effort syndrome. Both patients may be hyperkinetic and may suffer from phobias, insomnia and apprehension. The cold wet palms, the pulse rate varying from slow to excessively rapid, the absence of widened pulse pressure, the marked vasomotor instability and the normal basal metabolism usually serve to identify the neurasthenic. When, however, the basal metabolism is somewhat elevated, a study such as that described in the following case may be necessary to establish the diagnosis.

REPORT OF CASE

Neurocirculatory Asthenia Resembling Hyperthyroidism: L. M., a married woman of 23, became irritable and apprehensive and complained of rapid heart beat shortly following the birth of her first child. She had a small diffuse goiter first noted at about the age of 15. At that time she had suffered from similar nervous symptoms and had been given a medicine she believed to contain iodine; following this the nervous symptoms improved and the goiter became smaller. In the year following the birth of her child she lost 15 pounds in weight. Her face and neck were flushed, there was slight exophthalmos, the thyroid was slightly but diffusely enlarged and there was a slight tremor of the fingers. The pulse ranged from 80 to 115 and the blood pressure was 110 systolic, 65 diastolic. A basal metabolism before hospital entry was reported as plus 16 per cent. Basal metabolism tests after entering the hospital were minus 2, minus 7 and minus 3 per cent. Creatine and creatinine excretion upon a controlled diet were within normal limits. Blood cholesterol determinations ranged between 125 and 170 mg. per cent. Lugol's solution was administered as a diagnostic test as described by Means.¹ The basal metabolism did not fall, being plus 1 and minus 1 per cent after twelve days, and the creatine and creatinine excretion were unchanged.

Neurocirculatory asthenia was diagnosed in this patient and operation was not advised.

It also is necessary to examine the possibility that true hyperthyroidism may occur in the presence of neurocirculatory asthenia. In other words, the neurasthenia may mask the thyroid disease. If there is a persistent elevation of the pulse rate even at rest, or if the basal metabo-

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lism is persistently above normal, hyperthyroidism should be strongly suspected. If the metabolism falls appreciably after iodination, the diagnosis of hyperthyroidism may be made.

Hyperthyroidism may be masked by vascular hypertension. Patients with high blood pressure frequently have flushed faces, excessive sweating and mild tachycardia and some elevation of the basal metabolic rate. An elevated diastolic pressure is not usually caused by hyperthyroidism but may occur in hypertensive patients with thyrotoxicosis. These patients deserve especial consideration because of the necessity of relieving the vascular system of the extra load caused by the excessive metabolism. Testing for hyperthyroidism by iodination frequently results in distinguishing those patients in which the high metabolism is one of many accompaniments of hypertension from those in whom the thyroid is primarily overactive. Thyroidectomy results in marked improvement in the hypertension in many of these cases.

Heart disease in various forms simulates thyrotoxicosis. This is especially true of mitral stenosis. In this condition there may be flushed face, anxious appearance, tachycardia and elevated metabolism. Auricular fibrillation may occur frequently in either condition. Other heart conditions may offer similar confusing features. The recent demonstration of the therapeutic value of thyroidectomy in various forms of heart disease emphasizes the necessity of detection of those cases in which thyroid disease may be an active factor in causing decompensation and in which the hyperthyroidism may be masked by the more prominent cardiac signs or symptoms.

Hyperthyroidism may occur in patients with pulmonary tuberculosis. The flushed face, tachycardia, weight loss, gastro-intestinal irritability, elevated basal metabolic rate and nervous manifestations may be attributed to the pulmonary disease alone and thus mask the presence of the hyperactive thyroid. It is, of course, of the utmost importance to remove the strain of the excessive metabolism from these patients as soon as possible. A widened pulse pressure, eye signs, tremor or enlargement of the thyroid may lead to the correct diagnosis.

At the time of the menopause many women present a symptom complex remarkably like that of thyrotoxicosis. Emotional instability is expected at this time and the nervousness, tachycardia, flushing, sweating and palpitation may be due entirely to the "change of life." It should be remembered, however, that during the menopause, as at the other sexual crises, such as puberty and pregnancy, there may be changes in the functional activity of the thyroid

as well as of the ovaries. The change may be in the direction of hypothyroidism or myxedema, but frequently hyperthyroidism occurs and is masked by the symptoms attributed to the menopause.

We have next to consider those patients in whom true hyperthyroidism is present but one or more of the usual cardinal symptoms is lacking. Charcot, in 1885, under the caption of "*Maladie de Basedow, forme fruste*" was possibly the first to draw attention to those cases in which one or another of the triad of struma, exophthalmos and tachycardia, was lacking. Chvostek, in 1887, described *forme-fruste* Basedow's disease as cases of undeveloped symptomatology, symptom-poor in contrast to the fully developed symptom-rich cases. Weight loss, eye signs, thyroid enlargement and elevated basal metabolic rate may be absent in true thyrotoxicosis. Tachycardia and elevation of the basal metabolic rate are probable the two most constant features of true hyperthyroidism. Whether hyperthyroidism can occur with a normal pulse rate is doubtful. During remissions, however, patients with hyperthyroidism may have a normal rate which tends to fall with the basal metabolic rate and rise again as the basal metabolic rate rises.

It should be strongly emphasized that hyperthyroidism may occur in the absence of goiter. When other indications lead to the diagnosis, the usual treatment should be prescribed even if the gland is definitely not above normal in size.

The eye signs appear with great irregularity. Possibly 50 per cent of thyrotoxic patients with diffuse goiter show some eye signs and 10 per cent of those with nodular goiter. The absence of exophthalmos, lid-lag, widened palpebral fissures and faulty convergence does not speak against the diagnosis, although their presence is good confirmatory evidence.

Absence of elevated basal metabolic rate does occur in association with true hyperthyroidism. That is, the rate may fall within the usually accepted normal range of plus 10 to minus 10 per cent. The symptoms and signs in such cases are usually borderline in character but may be quite definite. As contrasted with patients with neurocirculatory asthenia, the pulse rate at rest remains high, the pulse pressure is increased and there is a fall in the basal metabolic rate after taking iodine. It must be concluded that these patients have a normal basal metabolism below or at the lower limit of the commonly accepted normal range. If, for example, a patient's normal basal rate were minus 15 per cent, a figure of plus 10 would represent a 25 per cent elevation. One also should remember that thyroid function is fluctuant and pa-

tients with thyrotoxicosis may have normal rates during remission. Thyrotoxicosis with normal basal metabolic rate has been called the "larval" type or "form fruste" and has been described by Clute,² Troell,³ Plummer⁴ and others. Gordon and Graham⁵ conclude that it occurs more commonly with nodular goiter (fifty-four of their seventy-one cases). The patients are usually women past middle life who present the so-called "burned-out" thyroid symptom complex. Cardiac decompensation, probably the result of prolonged mild hyperthyroidism, is found frequently in such patients.

All these patients, however, are not in the older age group. The following case of a young man illustrates the fluctuant character and diagnostic difficulties in such patients.

REPORT OF CASE

Hyperthyroidism with Normal Metabolic Rate: G. S., a man aged 27, had complained of goiter, nervousness, palpitation and excess perspiration for several years. The thyroid had gradually diffusely enlarged. Marked variations were noted from time to time in its size. His skin was flushed and warm; there was definite tremor of the hands. A soft bruit could be heard over the gland. The pulse rate was 100, the blood pressure 150 systolic, 90 diastolic. During two years' observation there were moderate variations in the severity of symptoms and repeated basal metabolic rates averaged plus 6 per cent. At one time iodine was given and the rate fell to minus 1 per cent and the pulse to 84. At another time after three control determinations varying from plus 10 to plus 6, rest and phenobarbital resulted in a fall to minus 6 per cent with a pulse of 80 and blood pressure 125 systolic, 70 diastolic. Subtotal thyroidectomy was performed and resulted in marked improvement.

If neither goiter nor high metabolic rate is present, the utmost care must be taken in establishing the diagnosis in a suspected case of hyperthyroidism. If there is definite clinical evidence of hyperthyroidism in the presence of goiter the apparently normal basal metabolic rate should be disregarded in treatment.

In the last group, those patients in whom symptoms or signs referable to a single system dominate the picture, the most common are the so-called "thyrocardiacs." Dyspnea, palpitation, precordial distress and perhaps repeated attacks of fibrillation may direct attention to the heart and away from the presence of the hyperthyroidism. These cases are those already mentioned occurring usually in women past middle age with nodular goiter. The heart is enlarged, the pulse rapid, the heart sounds may be loud and snapping and a systolic murmur may be present. Unlike mitral stenosis, which otherwise may be closely simulated, no diastolic murmur is present. Apparently irreparable damage to the heart muscle seldom occurs as the result of hyperthyroidism alone. If a patient with signs of cardiac failure from

thyrotoxicosis alone is relieved of the hyperthyroidism, there is complete recovery from the cardiac symptoms.

Not infrequently these older "burned-out" patients exhibit only dyspnea and tachycardia and a small nodule in the thyroid. The metabolic rate may be elevated or within normal limits. They benefit greatly by operation.

Rarely a unilateral exophthalmos may be the chief complaint and, while search is being made for orbital or postorbital tumors, the possibility of hyperthyroidism may be forgotten. Occasionally unilateral exophthalmos or widening of one palpebral fissure may antedate by some months the appearance of other hyperthyroid features.

The hyperthyroid patient is usually thought of as having an excellent appetite. Loss of appetite may occur, however, and sometimes vomiting and grave diarrhea leading to serious nutritional disturbance. I have recently observed such a patient who could scarcely be forced to eat. His appetite took a capricious turn so that only the most unusual foods seemed attractive. We had to resort to feedings by nasal tube and parenteral fluids and glucose in preparing him for operation.

Elderly patients with fatigued appearance, not at all hyperkinetic, may show muscular weakness as a predominant symptom. The metabolic changes in hyperthyroidism may resemble in many respects those in certain muscular atrophies and dystrophies.⁶ These are the so-called "apathetic" hyperthyroids. The muscle weakness, weight loss and apathy are promptly corrected in many cases following thyroidectomy.

SUMMARY

1. Caution must be observed in separating patients with true thyrotoxicosis from those with elevated metabolic rates from other causes, or with symptoms suggesting thyrotoxicosis.

2. Patients with true hyperthyroidism may be atypical due to (a) masking of the thyroid features by other symptom complexes; (b) predominance of signs or symptoms referable to a single system or, (c) absence of one or more of the classical features.

3. Detection and treatment of these atypical and borderline cases is frequently difficult but is especially gratifying in the results obtained.

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A REVISED CONCEPTION OF EARLY PROSTATIC HYPERTROPHY

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Every urologist or prostatic surgeon will recognize this slogan, "Our doctor advised me to never let anyone operate on me until I just had to." The scene we have come upon is an elderly gentleman who for one or two days and nights has been straining and gasping in a vain attempt to deliver himself of a distended bladder. His appearance is bad. His color is ashen-grey. His eyes are lusterless. Every few minutes he drags himself from his bed and totters to the bathroom only to emerge again with a drawn and futile facial mien.

Our examination discloses a toxic dehydrated patient. His tongue is dry and parched. His pulse is bounding and rapid. Abdominal palpation discloses a large tumor-like mass in the lower abdomen which our experience tells us is undoubtedly an immensely distended bladder. As we carefully pass a soft catheter into his bladder and the urine begins to flow, he sighs with grateful relief. However, we will not yet empty his bladder as we know from experience that to do so may precipitate a critical and dangerous emergency. We content ourselves, notwithstanding disappointed expectancy of the patient, with anchoring the catheter in situ with a grooved plug inserted in the free end allowing the urine to drip rather slowly. We sit down and try to explain to the patient and family the principles and hazards involved and to impress upon them the importance of copious fluid intake.

We return the following day to find an empty bladder but a very ill and devitalized patient. His tongue is dry, his pulse is intermittent and he has no inclination to leave his bed. To their inquiries concerning therapeutic measures, among which we explain the surgical aspect, we get a reaction of horror and amazement, excepting from the patient whose recent experience convinces him that most any plan is preferable to what he has just been through. The family is still unconvinced. There was "Uncle Ben" who was taken to the hospital and oper-

ated upon and died the next day. We tolerantly explain that an indefinite period of careful nursing is necessary to restore the sick man to a condition which would allow any kind of surgery to be undertaken with safety; that during those several years while he had been straining and losing his rest at night a steady progressive change had been taking place with his cardiac, renal, hepatic and other vital functions. Naturally, just conceding that surgery might be considered, they inquire concerning the expense. They are appalled at our estimate. We patiently try to explain that, if we keep safety primarily in mind, the operation itself is only a small part of the extended care and service necessary to return the sick man safely to his home.

Then the matter of a new type of operation comes up. They have heard of some sort of electrical operation which is supposed to be much less dangerous and which only keeps the patient in the hospital a week or ten days. We explain that this is entirely according to the facts, provided the patient's difficulty is suitable to the procedure and that his condition is such that it can be safely undertaken at once, which is not true in all cases. We explain that several years previously this could probably have been done but that in view of this patient's condition a careful period of preparation would be necessary to insure safety, with any type of operation, and that in all probability the operation would have to be done in two stages to facilitate the removal of a sufficient amount of the large prostate gland to insure comfort in urinating afterwards. They appear skeptical. They have heard that "Doctor So and So" could put any of them through with this operation in two weeks time.

Obviously something is wrong with this picture. Let us digress from our thesis momentarily. No sensible physician today tells his patient, "Never let anyone take out your appendix until you just have to." No sensible patient expects or wants to hear such advice. Why? There must be a logical reason. Why is constructive advice given concerning the appendix and denied the prostate? The reason is quite apparent.

During the early history of appendiceal surgery the mortality was appalling because operation was undertaken while the patient's vital forces were disorganized incident to a ruptured appendix and general peritonitis. The patients really died owing to a chaotic disorganization of the autonomic nervous system; broadly speaking, from shock. As time went on it was discovered that, given time with supportive measures, a reorganization of the vital forces occurred and operation could then be done with

minimum hazard. The profession and the laity now fully understand this proposition, consequently appendiceal surgery is on a safe and sane basis.

To return to the prostatic problem. Here the same conception of vital physiology holds as with the appendix although less precipitately dramatic. The insidious development of prostatic hypertrophy lulls the patient into a false sense of security. His well-meaning physician advises him against operation until his condition is desperate because of the previous bad record of prostatic surgery. No problem in the realm of modern surgery more patiently and persistently announces its approach than prostatic obstruction. There is no surgical problem that could enjoy a more enviable reputation were the true facts of physiology understood and rational surgical principles applied.

INCIDENCE OF PROSTATIC HYPERTROPHY

Contemplation of the problem of prostatic hypertrophy in its early stages attracts our interest from two angles: First, why this phenomenon should occur together with the character of the histopathological changes in the gland; second, the clinical aspects affecting local bladder and general systemic physiology.

Concerning the cause of prostatic hypertrophy little exact information is at hand. One thing we do know, however, is that the cause cannot be attributed to previous gonorrheal involvement of the prostate or so-called early indiscretions. In fact, curiously enough, the individual who has struggled through the vicissitudes of recurring inflammatory prostatitis in early life can find more or less solace in knowing that he is not a likely candidate for prostatic hypertrophy in old age. He is likely, however, to find himself confronted with a contracted bladder neck, or so-called prostatic bar, which often is as productive of urinary back pressure as the enlarged prostate but fortunately is a comparatively easy problem. This will be dealt with presently in discussing therapeutics.

Prostatic hypertrophy has been called "the male climacteric." Recent endocrine studies seem to give some weight to this hypothesis. There is now sufficient evidence to warrant the assumption that the enlargement follows an endocrine change or imbalance, in which the orchic and pituitary hormones apparently are involved. Continuing along this line of thought, our interest is attracted to the histological changes in the prostate incident to the developing enlargement. The histopathological end results are well known. We are particularly interested in this connection to know what are the histopathological changes that occur along the way and when they begin. A most inter-

esting study of this appears in the September issue, 1936, of the *Journal of Pathology*, by Robert A. Moore, entitled "The Evolution and Involution of the Prostate Gland." This is by far the most complete study we have been able to find embracing all phases of evolution from infancy to adolescence and adult life through involutionary changes of later life.

Concerning the cause of senile involution Moore concludes, "At puberty there is a rapid maturation of the prostate, probably due to an internal secretion of the testis which is activated by the pituitary gland. During the 4th decade of life involution is initiated and continues as a progressive process into the 8th decade. All evidence indicates that this involution is a result of a decrease and cessation of the same internal secretion which appeared at puberty." He continues to conclude, "There are occasional cases in which senile involution is delayed ten to twenty years beyond the average time. There is no adequate morphological explanation for these cases." We are particularly interested in this statement as it brings up the assumption that in the absence of morphological factors, physiological factors most likely take precedence. We will return to this aspect presently under discussion of therapeutic measures.

MORPHOLOGICAL CHANGES

Before taking up therapeutic measures, we wish to go briefly into the matter of morphological involutionary changes of the prostate occurring with the incidence and development of senility as a basis for rational therapeutic measures. The above study indicates that between the 40th and 45th years there begins an irregularity in the height of the glandular epithelium; that lobular atrophy begins between the 45th and 50th years; that the glandular epithelium loses its secretory activity between the 50th and 60th years; that sclerotic and smooth muscle atrophy with relative or absolute increase of fibrous tissue stroma is apparent between the 60th and 70th years.

The essence of the foregoing study indicates that, in the average individual, there sets in during the presenile period, from 40 to 45 years of age, an involutionary process in the prostate with the trend toward a return to the pre-adolescent period in which the muscular and fibrous elements relatively overbalance the epithelial or glandular structures in contrast to the midadult period.

THE HYPERTROPHIC PROSTATE

But to return to the theme of this paper, the hypertrophic prostate. While the foregoing study of Moore gives a clear-cut conception of the changes occurring during the various stages

of life in the average prostate, based on an unselected series of 678 prostates secured at consecutive autopsies, it makes no pretense of presenting a composite picture of prostatic hypertrophy per se. The study, however, does provide a practical basis for our contemplation of prostatic hypertrophy, particularly hypertrophy in its early stages. Presumably, nature intended to initiate an orderly shrinkage of the prostate at the presenile period of life. That this does occur in a certain percentage of individuals is well known. On the other hand, however, for some reason not clear at this time but very likely endocrine in its aspects, a reverse process takes place resulting in prostatic enlargement, often disorderly in character.

As has been previously said, two outstanding considerations immediately arrest our attention, first, the cause, and second, the effect; and to these a third may now be appended, rational therapeutic measures. Of the first proposition nothing additional need be added here to what has already been said. The second proposition is worthy of a much fuller consideration than time and space will permit in this thesis. The stealthy and insidious development of prostatic hypertrophy brings little concern to the patient until the dramatic occasion when he suddenly realizes that he is unable to urinate. Only the prostatic surgeon fully appreciates the effects on vital physiology of the slow but persistent choking process at the bladder outlet. It is only the prostatic surgeon who appreciates fully the painstaking and exacting attention to every angle of vital physiology necessary to pilot the patient successfully through the period of readjustment incident to preoperative bladder drainage.

We know of no more outstanding illustration of the effects of prostatic obstruction than to note how effectively the patient, after successful removal of the obstruction, recaptures several years of vitality which he had considered lost to him forever.

RATIONAL THERAPY

Let us return to the original theme of this paper and to some practical plan of avoiding the disastrous end results of long years of insidious prostatic obstruction, some plan to salvage several years of useful endeavor for these patients.

First and foremost, the general practitioner and the patient must appreciate the progressive and insidious undermining of the patient's physiology and vitality incident to the development of prostatic obstruction; and second, the practical aspects of the newer and modern aspects of prostatic surgery which are now well

past the experimental stage and are now well understood.

Endocrine Therapy.—Let us here digress momentarily to consider recent developments along this line. Rather recently considerable publicity in both professional and lay publications has been given the studies of Lower and Engle. While the authors of the work quite frankly concede its experimental status, still it appears that they have been able to show some clinical results in their cases. Based on the assumption that prostatic hypertrophy occurs incident to an endocrine imbalance, the proposition would seem to possess some potential merit from a prophylactic standpoint. Given a case, however, where definite hyperplasia of muscular and fibrous tissue has occurred it requires an elastic imagination to expect this hyperplasia to absorb under endocrine therapy. We do not wish a condemnatory construction placed upon our remarks concerning this meritorious undertaking. However, unless most judiciously applied it appears as yet another refuge of false security for the patient whose susceptibility to any form of palliative therapy is only too well known.

Local Therapy.—In the initial stages of prostatic involution there occurs, incident to the morphological changes, a considerable congestive edema of the prostate. Much relief can be afforded the patient at this period by judicious local therapy as massage, physiotherapy and depleting applications to the prostatic urethra.

SURGICAL ASPECTS

In those cases where it is clear that progressive bladder-neck obstruction is under way, uninfluenced by local or other therapy, the patient should be offered the advantage of prostatic surgery without undue delay.

The most difficult hurdle for prostatic surgery in the years gone by has been to convince the patient of the need until he had reached the dramatic climax already described. All in all, he could hardly be censured in this respect as no alternative was offered him but a major operation which he was reluctant to accept while he was in no apparent difficulty of a serious nature for the time being. Most men, particularly in the presenile period, feel a rather friendly attachment for their prostate glands. To be entirely plain about it, they are apprehensive of the results, both physical and sexual, of parting company with their prostates by radical surgical removal.

ELECTRICAL TRANSURETHRAL RESECTION

The newer aspects of prostatic surgery, exemplified by transurethral electrical resection of

the prostate, have been sufficiently publicized that a historical review of the procedure is unnecessary. It is sufficient here to say that this procedure invalidates most of the objectionable features of radical prostatic surgery during the presenile period and, at the same time, offers the patient a practical means of escape from the disastrous end results of progressive prostatic obstruction.

Cases presenting symptoms of bladder outlet obstruction do not always exhibit enlargement of the prostate. In many instances a sclerosis with contraction occurs which is productive of equal obstructive symptoms. In these cases transurethral surgery is particularly practical; in fact, in these cases it is the only type of surgery that is practical.

We wish particularly to reemphasize here the comparative safety and minimum inconvenience of transurethral resection when applied during the earlier period of prostatic obstruction. Paradoxical as it may appear, we are not at all in accord with much publicity that has gone forth concerning this aspect of transurethral resection in general. We feel very strongly that this point has been overemphasized, to the detriment of both the patient and the reputation of the procedure. Judicious preoperative preparation of a prostatic obstruction of long standing with associated infection and attendant systemic decompensation is as indispensable with transurethral resection as with radical prostatectomy.

In our series of cases in which transurethral surgery has been applied, 438 in all, we find that in 114 cases the patients were under 58 years of age; that in these cases the average preoperative hospitalization was 1.6 days and the average total hospitalization was 9.2 days. There has been no mortality in this group of 114 cases nor any serious morbidity.

At this point two propositions command our attention which are of particular interest to the patient: First, the effect on the sexual potency and, second, whether or not progressive prostatic enlargement may necessitate a second operation.

Concerning the first, inquiry indicates that in about one third of the patients potency has been enhanced and, with a few exceptions, the remainder reported no change.

Concerning the second proposition, in the so-called prostatic bar and bladder-neck contraction types of cases, as might be anticipated considering the pathological aspects, the patients are generally quite happy and there is every reason to anticipate that they will so continue.

Whether or not progressive prostatic enlargement will necessitate additional resections only

time can determine. Clinical observation however, so far, is encouraging on this point. Almost invariably in all cases in which opportunity has been had for examination and observation not only has no further enlargement been noted but, conversely, a definite shrinkage has occurred. Apparently the reaction of the resection procedure induces some sort of involuntary change in the progressive course of the hypertrophy which we are unable to explain at this time. The patient clinically enjoys a sense of snappy bladder emptying in contrast to the tight sluggishness which prevailed before operation and, furthermore, there is a distinct enhancement of his general feeling of well-being. Finally, conceding for the sake of controversy, that further resection may be necessary we feel that all in all the end attained is well worth the effort. In the meantime, the patient is enjoying good bladder function and is being spared the impairment of general physiology from urinary back pressure.

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DISCUSSION

DR. OTTO J. WILHELM, St. Louis: I am very much in accord with this splendid presentation of Dr. Smith's, the general theme of which is an appeal for early observation and study of prostatism. Undoubtedly if the urologist saw greater numbers of these unfortunates earlier, when their nocturia, dribbling, tenesmus, etc., started, he would be confronted with much simpler problems and much happier results.

I think the paramount issue and the secret of success in prostatism is the management. It is of signal importance and in my estimation far more important than the surgery. The progress that has been made in the treatment of prostatism in recent years, and I think you will grant that the progress has been quite stellar, stands in medical annals as the triumph of urology. Just consider that twenty years ago prostatectomy had a mortality rate of 50 per cent and today the mortality rate has fallen to the astounding rank of from 1 to 4 per cent varying according to type and class of patient.

With our ingenious methods of detecting physiological defects by means of blood chemistry, dye tests, etc., there really are few valid reasons we can advance for the loss of a case.

The bitter controversy about favorite procedure and instruments has simmered down to individual preference and proficiency. The methods among urologists have more or less been standardized.

Without a doubt the basis of safety and success is preparation. Not all cases suffering from prostatism require surgery, and in certain physical wrecks it is certainly inadvisable. With proper preparation a patient who primarily is unfit for operation may come to operation; one who primarily appears to need surgery becomes comfortable under adequate treatment without surgery, or one may develop such complications during his preoperative preparation that surgery is indefinitely postponed. Each patient is an individual problem. In cases of complete retention the patient has a choice of two things: (1) operation, or (2) a catheter life. The average expectancy

for those who choose the catheter life is two years, and therefore there should be no hesitation in choice.

Factors which determine choice of management are: (1) Age. Fifty per cent of men under 60 with acute retention will resume normal, satisfactory urination after relief, while the majority of men over 70 that have retention have a permanent affair and seldom have satisfactory urination. (2) Amount of residual urine. Often surgeons advise operations only after finding amounts of 200 cc. or more. (3) Cystoscopic investigation is important in determining whether surgery is imperative or not. Trabeculations and cellulites show chronic obstruction. Functional tests show the amount of renal destruction and are a guide to the apparent length of preoperative preparation.

Use of catheter: Probably more patients die from the use of the catheter in prostatism than from surgery. Catheterization is always fraught with danger since (1) it causes ascending infections; (2) it stirs up latent sepsis and, (3) it causes epididymitis, uretero-vesical hemorrhage or leads directly to uremia or death.

One of the problems of today is the early opening of the bladder, and the other is the anuria that follows sudden decompression. I am opposed to sudden decompression by way of suprapubic route upon infected bladders but am heartily in accord with the use of suprapubic drainage rather than urethral catheter drainage in the uninfected retention. We shall learn as time progresses that more gratifying results will be attained if we minimize the trauma in the urethra.

DR. NEIL S. MOORE, St. Louis: I should like to endorse Dr. Smith's paper because I think it is an educational campaign that we should place before the lay public as well as the practitioner. As a native of Southeastern Missouri I know how very difficult it is to get John Smith who lives eight or ten miles from town and who only comes to town two or three times a year to submit to a prostate examination. He thinks such conditions are those that an older man is supposed to have and continues until he suddenly develops complete retention of urine. A man of 50 is just getting his second wind and to suggest an operation to him many times meets with defeat. But I want to commend Dr. Smith for the masterly and logical manner in which he has presented his subject. In other words, he has pointed out the necessity of examination of the patient and preparation for any of the various types of operation.

To add a touch of local color and amplify the extremes of prostatic disorders I should like briefly to relate the history of two cases referred from the vicinity of Cape Girardeau. One gentleman, 65 years of age, had partial retention of urine although there was complete retention at times. In that case the prostate was a foreign body and not completely obstructive yet when operated on by a two-stage method and a prostate weighing approximately twelve ounces was removed he made an uneventful recovery.

The other case was a man aged 38 years who had complete retention of urine on many occasions. On examination I found he had a small enlargement of the middle lobe of the prostate. Later I did a punch operation and in three or four years this man returned to St. Louis with retention of infected urine. By that time we were doing resections and had pretty well standardized the operation. After removing several sections with the resectoscope he is symptomless at the present time, free from urinary disturbance and when I last heard from him was enjoying good health.

RETINAL DETACHMENT

ITS RECOGNITION AND TREATMENT

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ST. LOUIS

Retinal detachment, although an uncommon cause for blindness, is a dangerous disease and one worthy of serious attention. When it occurs, it often also attacks the second eye and thus renders the patient totally blind. The retina, which is normally flat against the back of the eye, suddenly drifts forward into the vitreous; this change explains why the patient complains of a sudden loss of sight as though a curtain or veil has been drawn over the eye. For only a short time a part of the retina floats free and the eye has partial sight but eventually the retina loosens entirely so that total blindness results. By keeping in mind the mechanical nature of the condition one is more apt to recognize its presence.

Most patients suffering from retinal detachment are in late middle life and have been attacked without warning. In the average case there has been no injury or illness to account for the condition. The patient may have been doing merely a simple task and in the midst of this the sight suddenly fails. There is no pain or other symptom and the outward appearance of the eye is normal. Since the condition is so asymptomatic, the average person does not visit a doctor until several days have passed, when he realizes that something serious has happened and seeks aid.

In young people the condition frequently comes on after an accident which forcibly tears the retina and allows fluid to get behind it. A blunt injury to an eye is often dangerous in that internal damage may have been done. Such an eye should be watched for several days if one is to be sure that failure of vision does not develop.

Until about ten years ago eyes that were blind from retinal detachment could not be saved. Spontaneous cures were on record, it is true, but no reliable method of treatment was then available. Gonin of Switzerland pointed out that by sealing the hole or tear in the retina, the latter would take its normal position and resume its function. In 1931 he reported that as the result of his operations, performed in a large number of cases, approximately 50 per cent of the eyes were cured. Many others have taken up this work with equally good results.

Several improvements have been added to the original operation. Gonin plunged a red



Fig. 1. Surgical Ophthalmoscope. The ophthalmoscope clamps to the surgeon's glasses and is worn like a miniature operating headlight.



Fig. 2. The detached retina is bound down to the choroid and sclera.

hot cautery through the sclera, attempting to hit the hole in the retina. Realizing the apparent crudeness of the operation one is amazed to note the high percentage of cures obtained. The modern diathermy apparatus has greatly simplified the operation. With this machine a barrage of needle punctures is made through the sclera to cause localized points of choroiditis. This adhesive choroiditis binds the retina back in position.

Lately the tear has been treated with another refinement of technic. A fine needle is passed through the sclera into the retinal tear and a weak galvanic current is applied. The electricity causes acid or alkali (depending on the direction of the current) to form around the needle. The chemical change is not destructive like the cautery but it does seal the tear. For success with this method as with Gonin's cautery it is essential to have the instrument strike the tear.

A large number of methods for locating the tear have been devised since Gonin's original work was done. The eye is now carefully studied with the ophthalmoscope and a point on the sclera determined through which the tear can be reached. Many of these procedures are very ingenious but all are subject to considerable error. Striking the tear has been attempted somewhat in the trial-and-error method.

The writer has added to the armamentarium in the form of a small ophthalmoscope mounted on the surgeon's glasses. By means of this instrument the surgeon can see the inside of the eye throughout the operation and can guide the electric needle into the retinal tear by direct observation through the patient's pupil.

Since most medical men never see a case of retinal detachment they are naturally more interested in the relatively common illnesses. However, the physician must bear in mind that the occasional person who, already blind in one

eye, is suddenly attacked in the other eye with blindness caused by retinal detachment now has a good chance for recovering his sight.

823 Metropolitan Building.

DISCUSSION

DR. C. R. BRUNER, Columbia: I should like to emphasize that this is a matter that concerns the general practitioner of medicine. He will not treat these cases and is probably little interested in the technical angles of this type of case, but he does see many injuries of the eye, minor probably, and he does see cases where he is consulted about the eye condition. I would like to emphasize the use of the ophthalmoscope in the hands of the general practitioner of medicine because in using this he will naturally recognize some of these cases. I would further like to emphasize the importance of keeping the patient quiet after an eye injury. There may be only partial detachment of the retina, but if the patient moves about that may play a part in the further detachment of the retina. This is something that may be of value in the hands of any physician.

MEDICAL PATENTS

Morris Fishbein, Chicago (Journal A. M. A., Nov. 6, 1937), contends that living in the machine age, the development of specialization in medical practice, the incorporation of great industries for the exploitation of discoveries made in the laboratories and similar factors emphasize the need for some revision in the medical point of view concerning medical patents. He still concurs with his statement made in 1933, in an editorial on the subject of medical patents: "Conceivably the best interest would be served if some central body might be developed, wholly altruistic in character, capable of administering medical patents for the benefit of the public, and assuring a reasonable remuneration to the investigator, the devotion of much of the profit to research, and adequate return to manufacturers willing to develop quantity production and distribution in an ethical manner. Such a central body might also set up requirements for adequate clinical research in connection with the development of new products so that a premature launching of unestablished products on the medical profession or on the public could be avoided." It has seemed to him that the American Medical Association with its prestige, its central organization and its available funds might well stimulate the development of a corporation, not for profit, for the administration of patents in the medical and health fields.

COMPLICATING UROLOGICAL DIAGNOSIS

R. LEE HOFFMANN, M.D.

KANSAS CITY, MO.

The field of urology is devoted to the correction of disturbances pertaining to the genito-urinary system and therefore must include the simple as well as the complex problems. The field of prostatic surgery has had its development through both the suprapubic and the perineal procedures, each with its exponents claiming the most efficiency for the selected procedure. When statistics are given a careful analysis by an unbiased mind, providing the surgeon has been thoroughly trained, generally has proved the procedures to be equally satisfactory. The stabilization of this problem has recently been upset by the advent of the trans-urethral prostatic corrective measures which are now, in thoroughly experienced hands, also attaining equally efficient results and with a decreased period of hospitalization and disability.

The medical aspect of urology has also recently been invaded, by the problem of mandelic acid therapy. Results of this drug, whose potency is greatest in the field where the infection is caused by the colon bacillus, have been so spectacular in reported cases as to lead the less analytical physician to believe that the drug is not only a specific but one which can be used in every individual provided he has the colon bacillus as the infective organism.

True, the analysis of case reports and the summation of cases in series where laboratory tests have been carefully followed do reveal remarkably satisfactory results. This has been sufficient grounds for the commercial producer to flood the entire medical fraternity with glowing reports of its efficiency, stating that certain requirements, if met, give us our greatest benefit providing our patient has an otherwise nonobstructed urinary tract.

Our experience has been that the colon bacillus is rapidly killed with mandelic acid and the patients have shown a remarkably rapid and satisfactory recovery; provided, we prove first of all that the patient does really have the colon bacillus as the responsible infection and then only if certain other factors are proved and maintained; namely, a urine which has an approximately stable P_H of 5.3 as otherwise the efficiency of the drug is decreased or it may be completely inert. The acidity of the urine can be corrected either by the preliminary use of the acid ash diet or by the administration of acidulating agents, as ammonium nitrate and

ammonium chloride and, as these drugs are often nauseating, the problems of obtaining a proper P_H are often tedious.

The average conception of the urinary tract in treating infections is that it is normal other than the infection unless outstanding symptoms are present; therefore the attendant dangers in obstructive lesions can readily be overlooked in the eagerness to use a drug which can produce such highly satisfactory results.

We certainly realize that one cannot expect to have a cystoscopic study of all prospective patients for treatment with mandelic acid; but we can use our convenient laboratory methods in the proper preparation of such patients for treatment and a frequent and careful microscopic and chemical investigation of our treatment during the course of procedure rather than to close our eyes to the situation unless the danger symptoms of backache, dizziness, nausea and dysuria occur. The mandelic acid danger is nephritic irritation in cases of incipient as well as in authentically advanced renal damage since it is excreted as an organically unchanged acid.

The urological cripple may have many factors for our consideration, such as the hydro-ureter and nephrosis of pregnancy, the mechanically inefficient drainage of the ptotic kidney, the congenital abnormality of the double ureter and the fused kidney, extra urinary problems of aberrant blood vessels and pelvic inflammatory changes, pressure of strictures, stones and stenoses, tumors, both benign and malignant, and cysts. Any one of these may have presented insufficient symptomatology to warn us of its presence.

It is my purpose therefore to show you only some of the proved factors in cases where the colon bacillus was causing a pyuria and resultant sequelae of symptoms in which mandelic acid was considered and even instituted only to be discontinued because of the appearance of casts, albumin or blood cells and the prodromal symptoms of backache, nausea, headache and dizziness.

1019 Professional Building.

While twenty-eight fibromas and five myxomas of the cord have been reported, there is no mention in Hinman and Gibson's classification of myxofibroma, of which three cases have thus far been reported. In the present contribution, Abraham L. Wolbarst, New York (*Journal A. M. A.*, Nov. 13, 1937), reports a fourth case. Various diverse opinions on the nature of this tumor offered by four eminent pathologists who studied it emphasize the fact that it is frequently difficult for pathologists to agree on the proper category of a given tumor. The main question involved in this case was the interpretation of certain tumor elements which suggested a neurogenic origin.

IMPROVING THE CARDIAC CARE IN THE SMALL OR COMMUNITY HOSPITAL

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The improvement of medical care to the cardiac patient should be a concern of the organized medical profession and not of a lay or political board, social service organization or self seeking public healthers. Under the title "The Hospital and the Changing Social Order," Sister Gabriel in *Hospitals* (1936) stated, "The effect of standardization is to make the hospital a place in which to get well and learn to live rather than, as Browning once styled it, 'A good house in which to die.'" The improvement of our hospital facilities to include adequate care for both the acute cardiac emergency and the chronic cardiac sufferer should and can be brought to a better level of efficiency than even the care of the tuberculosis sufferer who now undernumbers the circulatory failure patients.

Of a total of 6014 hospitals in the United States 3096 have less than 100 bed capacity and of the smaller hospitals Missouri has eleven with a bed capacity of from seventy-five to one hundred; eleven, with from fifty to seventy-five; twenty-seven, with from twenty-five to fifty beds and sixteen hospitals have less than twenty-five beds. The percentage of occupancy is greater than for the larger general hospitals.

I propose to discuss first, the logic of hospitalization of this class of patients; second, the problems peculiar to the care of cardiac patients; third, the limitations of the present set-up; fourth, suggestions for improvement and, fifth, possible means of effecting improvement and theoretical considerations of the future.

It may seem strange that these suggestions come from one of the medical centers of the state rather than from a small community wrestling with the problem, but I offer the explanation that a physician who has worked and lived in a small community hospital, who has seen the care of cardiac patients in a large number of American and foreign hospitals, who has helped organize and participated in a concerted program in a larger city and medical center and who, in consultation and visitations over the state, has seen many community facilities and problems may be peculiarly fitted to discuss the subject from a broad enough experience to be of value.

Every physician in the audience will accept

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the fact of the existing need for improved care but may say, "Why talk about it? We are doing the best we can." But there is in the audience a small group of medical leaders from many different communities who do not accept the present situation as satisfactory, who welcome discussion and who have in the past lamented the inadequacy of their hospital to deal with the cardiac emergency. That hospital leaders see the logic of hospitalizing those cases is attested by our hospital journals containing a large number of discussions relative to the problems of the small hospital. It has become apparent that the larger institutions are relatively well-equipped but the problem of making the small or community hospital popular or adequate requires a much higher order of care and thoughtfulness. A much higher percentage of the patients in the community hospital are native born white Americans accustomed to supporting themselves and building their own institutions, and the need for community hospitals has not been pushed politically by social service organizations. Medical care in the city is intimately linked with political organizations and the care of the indigent sick. Buffalo City Hospital has as its motto, taken from Cicero, "Let the health of the people be the supreme law." Each community in awakening to the need of a local hospital parallels in their thinking the history of the development of the hospital. The first hospitals originated from the need of caring for the ill in the religious monastic orders; later, the care of the injured in armies; then, isolation in epidemics and pestilences; then, the workshop of the surgeon; next, a haven for the poorly housed or surgical obstetric patient and, lastly, as a convenient workplace to examine the seriously ill medical patient who requires multiple laboratory and roentgen ray examinations.

So the small community needs a hospital to house the industrial worker, the accidentally injured, the surgical and obstetrical patient. Last of all, they are becoming aware of the need for housing the medical patient and pooling their resources to afford the equipment for adequate examination and treatment.

Not so many years ago each family attempted to care for its tuberculous member, oftentimes exhausting the family resources and exposing other members of the family. Now the tuberculous patient is willingly sent for institutional care before the family is pauperized. The logic of hospitalizing the cardiac patient is that if he is an acute case he requires many facilities for speedy examination such as roentgen ray, blood chemistry, urinalysis and electrocardiograms. Also he requires frequent observation by the physician, experienced nursing care and the

nurse provided with every facility. A centralized medical supply source where potent drugs may be obtained quickly, dose by dose, and quickly administered, is essential. Oxygen therapy is often required and will be employed in proportion to its availability. The day is past when the cardiac emergency can be conscientiously met with a few simple commonly distributed drugs. This recalls the old adage often repeated to young physicians, "Remember, it takes a good doctor to save them; anyone can let them die." Chronic cardiac patients may logically be hospitalized not only for the previously given reasons with a lesser need for promptness and constant observation, but for the added factors of the relief of prolonged suffering and congestive failure by means such as adjustable cardiac beds and air-conditioned rooms, plus the need of additional laboratory services, such as basal metabolism, additional blood studies and the diversion of occupational therapy. A saving is effected in the medical and nursing care and a lesser amount of the community funds would provide superior medicines and diagnostic equipment. The assumption by the community of part of the burden, by providing the hospital, would permit a means of aiding the patient and family without a loss of pride and spirit and would permit many families to maintain themselves on a self-sustaining basis. This may prove of inestimable value to the medical economic situation of each community since each such family can continue on a normal pay-as-you-go relationship with the physician. The desire to care for the patient at home and be entirely self-sufficient is overbalanced by having these patients, a large percentage of whom are susceptible to sudden distressing events, in a position where they may be dealt with quickly by trained hands rather than by a tired and distraught relative. This last is an introduction to the discussion of the problems peculiar to the cardiac patient.

The susceptibility to sudden death or distressing events makes it impossible for a physician with a widespread practice to provide satisfactory service. Relief of cardiac pain, paroxysmal dyspnea, circulatory collapse, paroxysmal tachycardia, syncope of Stokes-Adams disease, paroxysmal fibrillation, vasovagal syncope, embolic phenomena, cardiac neuroses with mental terror and similar conditions cannot be met by simple drugs or inexperienced nurses. Prompt attention to these conditions oftentimes means comfort, safety to the patient and satisfaction in the services of the medical profession in contrast with the dissatisfaction and the prolonging and amplifying of distress of the isolated home patient. The progress in diagnosis and care during the last ten years has been followed closely

by the layman until he is no longer satisfied with the diagnosis of "heart disease" but, educated to believe that heart disease is secondary to usually discoverable causative factors, his attitude is now, "Yes, I see there is heart disease but what caused it?" He has a right to expect examination of the blood to rule out the effects of anemia or lues, examination of the urine for nephritis or diabetes, repeated blood pressures for the effect of hypertension, roentgen ray for sinus, lung or mediastinal inflammation or obstruction, cardiac silhouettes, estimates of effusions, bone changes of parathyroid disease, basal metabolism for the effect of myxedema and hyperthyroidism on the heart, electrocardiogram for evidence of coronary disease, coronary thrombosis, identification of rhythms, estimates of digitalis dosage and digitalis intoxication, and the suggestive changes in the electrocardiogram which have proved of diagnostic value in a variety of conditions.

Since cyanosis is not only a frequent accompaniment but also a cause of myocardial failure, the management of cyanosis may be considered one of the problems peculiar to cardiac care. Also the variety of individual responses to digitalis and quinidine justifies us in asking that the patient be hospitalized during their intensive use. The continued giving of sedatives and narcotic drugs and the prolonged vascular changes and anemia of the brain cause peculiar mental changes which unfit the patient for home care. Of major importance also to the patient is a scientifically supervised diet and recorded water balance of intake and output. Patients of otherwise unassailable character cannot be trusted to estimate and report their water balance. The diabetic of the preinsulin days is, in comparison, a mere amateur at self-delusion and falsification. An otherwise satisfactory nurse may be lax in this respect unless constantly reminded of the importance of the accuracy of her report.

The limitations of the present set-up are given briefly. Many communities, even whole counties, are without a small hospital. The small physician-owned hospital is not to be neglected as a nucleus of a later general hospital but there are large areas without even that service. Many hospitals lack ample contributions and endowments so that free beds or partial payment cannot be offered. The total bed capacity is so limited that the accident and surgical cases, given preference, fill the beds. Approximately one half of the existing hospitals have adequate roentgen ray facilities, less than one fourth have adequate laboratories while an equal number have basal metabolism; less than a handful have electrocardiograph machines. The only aggregation of cardiac drugs is that of the forehanded

operating room supervisors who have assembled a few injectable circulatory stimulants. A few isolated members of the staffs are members of the American Heart Association and attend symposia on circulatory diseases at postgraduate assemblies, but there is no coordinated distribution of educational material or circulatory studies.

Recognizing these limitations, the suggestions for improvements would be: The setting of a definite program by the members of each county medical society to secure the donations and bequests of the well-to-do. The argument of perpetuating a name by the endowment of free beds for cardiac patients is quite powerful in interesting the aging affluent members of the community. Such methods have secured the best small hospitals of Missouri. The late Dr. Frank Billings knew the natural charity of human nature and the desire of the well-to-do to leave their funds for the greatest good to the greatest number of less fortunate people. His motto was "Everyone may be interested if properly approached and once manifesting interest may be brought to contribute if the proper contacts and persistence is used." Dr. Billings always asked for large sums while outlining the great good of the project and worked for years to obtain many of the largest hospital endowments. In some instances the county boards may be induced to contribute by hospitalizing their chronically ill, thereby encouraging the establishment of organized medical care. The cost to them of maintaining a patient will be \$1.80 a day. Various church boards and women's auxiliaries may be stimulated to produce an essential income and to stir up a public interest.

Purchasing the necessary equipment hinges upon making available necessary funds. Where additional equipment is needed it may be obtained, piece by piece, as a donor is found, and proper acknowledgment of the giver is essential to encourage further donations. Some of our best Eastern hospitals are furnished with equipment donated in this manner properly acknowledged by name plates and recognition given by the hospital board. It seems as essential to provide dietetic service and trained medical nurses as to provide anesthetic and surgical nurses for the surgical service. An effective program must include the employment of a medical supervisor of nursing and some supervision of diet.

It would be impossible for the general staff of a small hospital to keep fully abreast of the advances in cardiology just as it is impossible to maintain an advanced position in radiology and hematology. This situation can be satisfactorily met by those members of the staff whose practice is mostly medical taking the short bulletins of the American Heart Association and two or

three of their members acting as a committee for the furtherance of the study of cardiology and supervising the choice of equipment and maintenance of it. They should secure from the nearest medical centers speakers and demonstrators who will cover cardiac disease in a planned series of meetings. Upon assumption by the small hospital of the program of improving cardiac care, the staff could schedule educational talks on the circulation, about every third or fourth meeting, until the subject was brought clearly before the entire staff. This would require repetition in order that men employed in many fields of medicine could bear in mind the essential facts. The nearest medical schools should cooperate fully, providing such experienced speakers on a prearranged schedule. The subject of electrocardiography, at first a nightmare to the most intelligent general practitioner, could under such tutelage become much more exact than the roentgen ray service and, when the cardiograms were unusual and the circumstances justified, the consultation of a man specially trained in this subject may be easily obtained for a reasonable fee by mailing or carrying the electrocardiogram to the distant consultant. The card is readily available and the material durable. Each community hospital or the individual member of its staff could choose the consultant in electrocardiography. Only a small number of the cardiograms would require special analysis and this service would be very satisfactory for them.

In further theoretical consideration for the future we must envision the community hospital as the center of postgraduate medical education, the workshop of the county medical society, the central diagnostic unit of the community, the most worthy project to invite the charity of the well-to-do, and as a haven for the cardiac patient where either relief and return to earning may be obtained or life prolonged in comfort until Nature's resources are exhausted. In addition it may be the central unit for a district nursing service from which nurses with ample medical training may be secured.

Discussion of the means of improving the facilities of the small hospital would be incomplete without a listing of the essential equipment in the order of importance. First is the laboratory. Second is the electrocardiograph machine, completely portable, which should be owned by the hospital or by the entire staff and cared for by one responsible technician and always kept in working order. The recent reduction of price of the machines and the lag-screen viewing recently introduced which permits the observation of the heart's contractions during an entire operation, obstetrical delivery or other crisis without the delay and expense of film development, make

possible the purchase and extended use. Third is the roentgen ray machine capable of taking six-foot chest plates and gastro-intestinal roentgen ray. Fourth, fluoroscopy of the heart should be encouraged, particularly the making of orthodiagrams, but this should not be taken as a recommendation of expensive and cumbersome orthodiagraphic attachments. Fifth, a recording basal metabolism machine is essential to the most practical of surgical services. Sixth is a blood pressure machine, not necessarily recording. Seventh, have oscillometry, if funds are sufficient. And eighth, have a paracentesis outfit for withdrawal of congestive fluids.

Drugs for the cardiac patient should be centralized under the supervision of a druggist or medical supervising nurse who should be held responsible for the maintenance of the items at the following minimum level: Digitalis in tablet or capsule form and the tincture, quinidine sulphate in 3 or 5 grain tablets or capsules, verodigen, strophanthin, injectible ergotamine tartrate, urginin, a small package each of adrenalin, pituitrin, aminophyllin and acetylcholine ampules, a liberal supply of caffeine sodium benzoate and coramine, a bottle each of aromatic spirits of ammonia and paregoric, tablets of morphine, codeine, pantopon, dilaudid, papaverine, atrophine and nitroglycerine, perles of amyl nitrite, injectible glucose and sucrose, glucose wafers, mercurial diuretics such as salyrgan, Xanthine diuretics such as aminophyllin, glucophyllin and theamin, oxygen therapy equipment preferably nasal catheter or mask inhaler using commercial oxygen.

In conclusion, this discussion is simply a presentation of the advantages of using the community hospital for the care of circulatory failure and indicating the minimum requirements that a hospital must provide for this important service. The medical school and internships are graduating a type of young physician trained to use these facilities and the community will profit by providing such centralized equipment which he must have.

1220 Professional Building.

MALIGNANT TUMORS OF UROGENITAL TRACT

Although the incidence of primary malignant tumors of the urogenital tract in the young is comparatively low, the extremely high mortality induced by these lesions makes them a problem of grave clinical concern. Meredith F. Campbell, New York (*Journal A. M. A.*, Nov. 13, 1937), believes that the only prospect for lessening the extremely high mortality of these lesions lies in (1) earlier diagnosis by urography, aspiration biopsy or hormone tests (Aschheim-Zondek), as indicated in a particular case, together with (2) intensive preoperative and postoperative radiation therapy by the fractional dose method (Coutard).

MAXILLOFACIAL INJURIES

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There has been an ever increasing number of maxillofacial injuries in the last five years. This increase has been due mainly to motor accidents and may be laid to the following: First, the great increase in speed of the cars; second, the increase in the number of intoxicated drivers, and third, the changed design of the newer cars with their low seats and high instrument boards against which the face is smashed.

I shall attempt to present the subject of maxillofacial injuries briefly in five divisions, as follow: (1) Surgery of the soft parts, (2) nasal fractures, (3) malar and zygomatic fractures, (4) superior maxillary fractures and (5) mandibular fractures.

The preliminary treatment of severe injuries about the face and jaws should be restricted to the prevention of suffocation and the arrest of hemorrhage. Danger of suffocation is most commonly due to loss of control of the tongue which may be so displaced as to obstruct the air passages. Posture is of vital importance. The importance of the lingual death zone in asphyxia as described by Chevalier Jackson in 1934 is now recognized and patients should be placed in the ambulance or bed so that the tongue will not fall back. The tongue is heavy and is not held in place by any ligament; its only support is the muscles. In all forms of prolonged unconsciousness the muscles relax and the tongue has a strong tendency to go backward by gravity; when it does so it shuts off completely the air entrance into the larynx.

Lacerations about the face and mouth are commonly dealt with in a hurried perfunctory manner with the result that both the physician and patient are later dissatisfied. Displaced hard and soft tissues should be corrected as nearly as possible to the normal position and fixed there at the earliest moment. When lacerations of the face extend from the external surface through to the mouth, treatment should be as follows: The wound is thoroughly cleaned with green soap and water then irrigated with sterile water and the surrounding tissue swabbed with alcohol. The mucous membrane is sutured from the inside of the month with black silk so that the stitches may later be removed easily. Lacerations in the oral cavity heal more quickly if the raw surfaces are loosely approximated than if left to heal by themselves. The deep tissues are then sutured with fine catgut and the skin surfaces are brought together with dermal suture or horsehair. When the

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laceration extends through the lip, it is important that the vermilion borders be sutured together in a straight line; otherwise an ugly scar will result. In lacerations of the lips, an infra-orbital injection for the upper and a mental foramen injection of 2 per cent novocaine solution for the lower will often save the patient much pain and make it easier for the operator to work. In practically all cases a prophylactic dose of tetanus antitoxin should be given.

In the diagnosis of facial fractures a careful inspection with palpation is important. This inspection must include the contour of the face, the alignment of the teeth, the infra-orbital ridge, the malar bones and the zygomatic processes. If the upper teeth drop downward on opening the mouth we must determine whether there is a transverse fracture with separation from the skull or a fracture involving the alveolus and palatine processes only. There is usually considerable edema which changes the contour over the normal bone and obscures the fracture. A properly taken radiogram is of value but unfortunately in many of these cases the extensive injury and condition of the patient does not permit this when the case is first seen. If one looks and feels for abnormal mobility, partial or complete loss of function, crepitus or deformity, few if any fractures will be overlooked. In most cases the earlier the reduction of maxillofacial fractures is made the better, for the sooner the fragments are brought into position and immobilized the sooner the repair can begin. If, however, the patient is so severely injured that his life is in danger it is better to delay treatment of the fractures until he is on the way to recovery, even waiting two or three weeks. This applies especially to the jaws for if there is a marked swelling of the floor of the mouth or if the tissues on the lingual surface or tongue are badly injured, immediate fixation may embarrass respiration or favor infection.

Fractured nasal bones are pushed into place with a blunt elevator used intranasally; if the fracture is not too badly comminuted it will remain in place. Care should be taken to replace the nasal septum when dislocated and it may be necessary to use an intranasal splint subsequently. I have found a piece of dental base plate wax placed on each side of the septum and vaselined gauze packed against the wax to be efficient. Occasionally it may be necessary to support the nose or apply external pressure on one or the other side; in that case some sort of head band is indicated. An interesting complication of depressed nasal fractures has been described by Naftzger; namely, a fracture through the lamina cribrosa.

The malar bone is, next to the nasal bones,

the facial bone most frequently involved in fractures. And because this bone forms a larger part of the lateral and superior walls of the antrum, fractures involving this sinus are quite frequent. A depressed fracture of the malar bone is the most frequent type although it may be displaced downward, upward or outward. The displacement may be such that the coronoid process of the mandible is affected. In all cases of malar fracture the infra-orbital ridge is broken and injury to the orbit and its contents is not infrequent. Reduction of this type of fracture may be done by the method of Shea, Roberts or Gill.

Fractures of the superior maxilla are not as common as mandibular fractures but are much more difficult to treat. A complete transverse fracture of the maxilla requires fixation outside the mouth. The jaws are wired together by the second Gilmer method. A skull cap of plaster or the crown part of a woman's felt hat is adjusted to the head and both jaws are then immobilized by a piece of rubber dam with a slight tension on it, encircling the mandible and attached to the skull cap. When there is considerable displacement of the maxilla it is often necessary to reduce it by rubber band traction. If this is the case, it is sometimes unavoidable to delay the fixation of both jaws until the teeth are brought into proper occlusion for the teeth may act as a wedge and prevent the traction from bringing the jaws into proper relation. Immobilizing the mandible to the maxilla is not always possible because the fracture through the nasal fossae may obstruct breathing. In these cases the maxillae and facial bones are supported by a Kingsley splint. This is constructed so as to cover the upper teeth with metal arms extending outside the mouth and backward in line with the occlusal plane. This permits using the top of the skull as a fulcrum in order to seat the fractured bones somewhere near their normal relationship. After the maxillary bones have been seated, pressure is applied to the mandible externally in order to establish normal occlusion.

Fractures of the lower jaw have been greatly simplified due to the observation of Gilmer who said that "generally speaking, the best splint for the lower jaw is the upper jaw." Thus by the use of intermaxillary wires the lower jaw is fixed in its proper relation to the upper jaw and allowed to remain for five or six weeks. The patient subsists of course on a liquid diet and it is never necessary to extract a tooth in order that the patient may take nourishment. The mouth must be kept clean by frequent brushing and irrigation. Complications are met as they arise.

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EDITORIALS

MEETING OF THE COUNCIL— ABSTRACT OF MINUTES

The Council of the Missouri State Medical Association met in Columbia at the Sinclair Pennant Hotel on November 23. Dr. M. Pinson Neal, Columbia, Chairman, presided. In attendance were Drs. A. S. Bristow, Princeton; H. B. Goodrich, Hannibal; Curtis H. Lohr, St. Louis; R. B. Denny, Creve Coeur; A. J. Campbell, Sedalia; E. P. Heller, Kansas City; H. L. Kerr, Crane; W. H. Breuer, St. James; A. H. Marshall, Charleston; Dudley S. Conley, Columbia, President; B. W. Hays, Jackson, President-Elect; Ralph R. Wilson, Kansas City, Chairman of the Committee on Maternal Welfare; M. L. Klinefelter, St. Louis, Chairman of the Committee on Fractures; A. R. McComas, Sturgeon, Chairman, and F. G. Nifong, Columbia, member of the Committee on Health and Public Instruction; J. F. Harrison, Mexico, member of the Committee on Public Policy; G. Wilse Robinson, Sr., Kansas City, Chairman of the Committee on Mental Health; James R. McVay, Kansas City, Acting Chairman of the Committee on Medical Legal Affairs; Dudley A. Robnett, Columbia, member of the Committee on Cancer; John Williams, Jr., Jefferson City, Assistant State Health Commissioner; Mr. Lou C. Lozier, representing the Missouri Highway Commission; Mr. E. H. Bartelsmeyer, St. Louis, Assistant Secretary.

The minutes of the meeting of the Council held in St. Louis on July 14 were approved as published in THE JOURNAL.

The Chairman appointed the following members to the Committee on Auditing and Appropriations: Drs. A. S. Bristow, Princeton; Curtis H. Lohr, St. Louis, and A. J. Campbell, Sedalia.

On recommendation of Dr. W. H. Breuer, St. James, Chairman of the General Committee on Arrangements for the 1938 Annual Session, the Council approved the dates of May 2, 3 and

4 for the meeting in Jefferson City with the understanding that the Capitol would be available as a meeting place.

The report of the Treasurer, Dr. John R. Caulk, was referred to the Committee on Auditing and Appropriations as follows:

STATUS OF FUNDS

General Fund	\$ 1,499.95
Defense Fund	1,420.76
Legislative Fund	3,606.63
Sinking Fund	4,269.00
	<hr/> \$10,796.34

The Secretary reported that the membership of the Association at the present time numbered 3233, an increase of eighteen since January 1, 1937.

The application of Morgan County Medical Society for a charter was approved. The Secretary reported that a check of the county medical societies holding charters would be made and duplicate charters would be issued to those societies whose charters had been lost.

Resolutions from the Mississippi Valley Medical Association, the Illinois State Medical Society, the Washington State Medical Association and the Oregon State Medical Society opposing Senate Joint Resolution No. 188, introduced by Senator J. Hamilton Lewis of Illinois, were presented.

A resolution similar to one adopted by the Washington State Medical Association at its annual session, July 21, 1937, was adopted as follows:

WHEREAS, We believe that members of the medical profession who are not members of their local medical societies do not have at heart the welfare of their professional fellows or that of the welfare of the practice of medicine and surgery;

WHEREAS, We believe in organized medicine; we believe that the American College of Surgeons is founded on the faith it has in the members of organized medicine and their ability to improve the general conditions of the practice of medicine as well as surgery; therefore be it

Resolved, That the Missouri State Medical Association request that the American College of Surgeons make it a requirement for the rating of "Approved" for all hospitals that no one who is not a member of his local medical society be made a member of the staff of said hospital, and be it also

Resolved, That the American College of Surgeons be requested to remove from their list of "Standardized Hospitals" all hospitals who have on their staffs physicians and surgeons who are not members of their local medical society, excepting in the instances of those physicians and surgeons who have not yet been able to meet the time limits prescribed by the constitution or by-laws of the individual societies, and be it also

Resolved, That a copy of these resolutions be also sent to the Council on Medical Education and Hospitals of the American Medical Association so that a hospital that does not conform to these resolutions shall not be recognized as a teaching hospital for interns.

The Secretary reported that a report had been made to the Missouri Unemployment Compen-

sation Commission, Jefferson City, to determine the Association's liability under the Missouri Unemployment Compensation law.

The invitation of the St. Louis Medical Society to the American Medical Association to hold its 1939, 1940 or 1941 session in the City of St. Louis was unanimously endorsed. The Council offered the assistance of the Missouri State Medical Association to the St. Louis Medical Society in securing this meeting.

The Secretary read a letter from Dr. John P. Peters, secretary of the Committee on Physicians, enclosing principles and proposals carrying the signatures of 430 physicians. The Secretary presented a statement authorized by the Board of Trustees of the American Medical Association for publication on November 27 in the *Journal of the American Medical Association* and released to the press for publication on November 21. The Council instructed the Secretary to acknowledge the communication from Dr. Peters and that permission be obtained from the Editor of the *Journal of the American Medical Association* to reprint the editorial in THE JOURNAL of the Missouri State Medical Association. The statement of the Board of Trustees of the American Medical Association appears on page 454 of this issue.

The Secretary was instructed to communicate with our Senators and Representatives in Congress emphasizing the importance of securing as soon as possible adequate legislation relating to foods, drugs, diagnostic and therapeutic devices and cosmetics either by amendment of present food and drug laws or by the passage of new laws.

The matter of the appointment of a special committee on automobile accidents to devise some plan of cooperation with other agencies which might be helpful in the problem of automobile accidents was referred to President Conley to be included in his recommendations to the House of Delegates at the forthcoming Annual Session.

The Chairman reported that at the invitation of Dr. Ellis Fischel, St. Louis, Chairman of the Missouri State Cancer Commission, the members of the Council had met with the Commission in St. Louis on November 3. Dr. Dudley A. Robnett, Columbia, presented to the Council an abstract of a statement which he had presented at this joint meeting.

The Council went on record as favoring the central part of the state as a location for the State Cancer Hospital. The Secretary was instructed to send a telegram to Dr. Ellis Fischel, the Chairman of the Commission, and a copy of the telegram to Honorable Lloyd C. Stark, Governor of Missouri.

Dr. John W. Williams, Jr., Assistant State Health Commissioner, presented to the Council

the program of the State Board of Health relative to immunization clinics.

The matter of providing speakers for addressing lay audiences was discussed. President Conley was authorized to confer with those agencies arranging lay meetings in the field of health and public welfare with the view of coordinating all efforts for the welfare of the people.

Mr. Lou C. Lozier, Assistant Chief Counsel of the Missouri State Highway Department, requested cooperation of our Association in providing medical services to the construction and maintenance employees of the Highway Department temporarily disabled in line of duty. Mr. Lozier pointed out that in several states this service was being rendered under a schedule of fees approved by the state medical association. On motion the matter was referred to the Committee on Medical Economics with instructions to confer with representatives of the Missouri State Highway Commission to work out the best plan possible for the care of such injured employees and submit its report to the House of Delegates at the Jefferson City Session.

Since the reports of all committees submitted to the Council will be reported in full for consideration and final action to the House of Delegates at the next annual session, only the Council's action relative to these reports is published at this time.

The report of the Committee on Defense was received.

The report of the Committee on Maternal Welfare, presented by Dr. Ralph R. Wilson, was received. The Committee recommended the submission to the state legislature of a bill similar to the Illinois Marriage Certificate law recently enacted in that state. The Council approved this recommendation and referred the matter of drafting a bill to the Committee on Public Policy for action by the House of Delegates. The recommendation of the Committee that lectures on "Maternal and Child Welfare" be delivered throughout the state by the members of the Missouri State Medical Association in cooperation with the State Board of Health's program on maternal and child welfare through the Home Economics, Extension Department, University of Missouri, or any other organization of similar deserving character, was endorsed by the Council and support pledged.

The report of the Committee on Medical Legal Affairs was presented by Dr. James R. McVay, acting chairman. The Committee reported that a joint session with the Medicolegal Committee of the St. Louis Medical Society had been held in St. Louis on November 4 and data had been submitted by the committee of the St. Louis Medical Society concerning replies to questionnaires from members of the St. Louis

Medical Society regarding the corporate practice of medicine as well as the status of a suit filed against the Missouri Pacific Hospital Association, St. Louis. The Committee appreciated the helpful cooperation of the St. Louis committee and the willingness of the members to explain in detail any questions submitted. The Committee felt that the facts presented did not justify or warrant the State Association to contribute funds from its treasury to join in the suit against the Missouri Pacific Hospital Association for the unauthorized corporate practice of medicine and further that regardless of the merits of this particular suit it was self evident the treasury of the State Association could not in any event assume such costly litigation which was estimated between \$10,000 and \$25,000. The report of the Committee was approved and the recommendations endorsed by the Council.

The report of the Committee for the Control of Syphilis was accepted.

The report of the Committee on Fractures was received. The recommendation that three or four papers on the subject of "Fractures" be arranged for consecutive presentation at the forthcoming Annual Session was referred to the Committee on Scientific Work. The recommendation that booths be assigned to the Committee to demonstrate fractures in cooperation with the Red Cross was referred to the Local Committee on Scientific Exhibits for the next Annual Session. The recommendation that county medical societies by Councilor District or individually be encouraged to hold at least one meeting a year on the topic of "Fractures" and that speakers would be furnished by the Committee in cooperation with the Committee on Postgraduate Work was referred to the Councilors of the respective districts for their guidance in planning councilor district meetings.

The report of the Committee on Survey of Medical and Hospital Facilities Available in Rural Areas on the progress of its work was received.

The report of the Committee on Health and Public Instruction (the McAlester Foundation) presented by Dr. A. R. McComas, Chairman, was received. The Committee was authorized in the name of the Association to prepare information on medical and health topics for submission to the Extension Service of the University of Missouri for printing and distribution to lay groups. The Committee was authorized to utilize the facilities of broadcasting station KFRU and others on request in presenting health educational radio programs to the public. The Committee was authorized to spend such sums as may be necessary in the conduct of this work.

The report of the Committee on Cancer, presented by Dr. Dudley A. Robnett, was accepted.

Dr. R. B. Denny, Chairman of the Council Committee on Membership, reported that since January 1, 1937, one hundred thirty physicians had been elected as new members of the Association and twenty reinstated, that fourteen applications are pending election by the St. Louis Medical Society and several applications are pending in other county medical societies. The report was approved.

The reports of the Councilors on activities in their respective districts were received.

The Secretary was instructed to send letters of condolence to Drs. Logan Allee, Eldon; John R. Caulk, St. Louis; Guy Titsworth, Sedalia; T. C. Hempelmann, St. Louis, and Mr. Ed. Watson, honorary member, Columbia, who are now ill, expressing the hope for their permanent and rapid convalescence.

The report of the Committee on Auditing and Appropriations was adopted and the budget for 1938 was approved.

It was decided to hold the next meeting of the Council in Kansas City in April, 1938.

THE CHOICE OF THERAPEUTIC AGENTS

The country has just witnessed one of its most shocking medical tragedies, culminating in the death of at least seventy-three persons. In many of these instances an unscientific proprietary preparation of unknown composition was prescribed by physicians; in others the drug was purchased over the counter from pharmacists who should not have been allowed to dispense secret remedies. A medicine which has given much evidence of therapeutic potency when administered in the form of tablets was put up in the form of an elixir. Because the term "elixir" generally and inexactly connotes some form of inert liquid used only as a vehicle, perhaps physicians can be partially excused for their negligence in prescribing it. Yet there are well defined although unofficial agencies which pass upon the usefulness of drugs, point out the limits within which they can probably be dispensed with safety.

The drug sulfanilamide is not the cause of the recent tragedy; this tragedy is wholly the result of the solvent (diethylene glycol) utilized in a solution devised by ignorant and inexperienced technicians and irresponsibly distributed. Such distribution is made possible by our lax food and drug laws.

The toll of life has been taken. The Food and Drug Division of the Department of Agriculture has removed the possibility of further

deaths from this preparation although it was necessary for it to somewhat exceed its statutory authority in so doing. The havoc wrought by this preparation once again serves as witness to the woeful inadequacy of the laws now upon the statute books and directed toward the preservation of the public health. Legally, it must be remembered, the Food and Drug Division had no right to condemn all shipments of the elixir of sulfanilamide distributed by the S. E. Massengill Company of Bristol, Tennessee. The present or the next session of the Congress must be made to realize the importance of adequate safeguards to the public health; certain revisions of the law in these respects are clearly indicated, the importunities of patent and proprietary medicine purveyors notwithstanding.

Sulfanilamide itself is valuable in the treatment of certain streptococcus and gonococcus infections; its final sphere of usefulness has not yet been ascertained. It received widespread publicity in this country as an agent capable, among other properties, of relieving the dread puerperal fever. Such publicity is proper for the general public is interested in the discoveries of organized medicine. Through its patronage of medical institutions it may be considered to subsidize research. It has, therefore, a right to know of significant contributions to therapy almost as soon as the physician.

But this same public must be protected against itself. It has long been recognized that the public lacks the technical training to prescribe for itself, that it must depend upon the medical profession for the proper application of the investigations of the laboratory. The medical profession must meet the obligation thus imposed upon it by keeping informed of the latest developments in the field of medicine. It must distinguish between those investigations which are merely of theoretical interest and those which are of practical value. The necessities of this discriminatory power impose an additional obligation, for the practicing physician has neither the time nor the facilities to determine the limits of safety which may be accorded new chemicals and new mixtures constantly being foisted upon the public and the profession by all manner of pharmaceutical manufacturers. They must remember that the detail man is paid according to his success in promoting the sale of the products manufactured by his company. They must remember that the detail man, like themselves, does not possess the technical knowledge to pass upon the possible harmfulness of the preparations which he recommends. Lacking, then, the essential requirements of knowledge with which themselves to pass upon this variety of healing agents, the physician must learn to abide by the recommendations of such

a body as the Council on Pharmacy and Chemistry of the American Medical Association. This body is not arbitrary in its decisions. In occasional instances its approval may seem to have been withheld longer than was actually necessary to determine the merits of a product; but in a far greater percentage of cases its decision will be handed down promptly, just as soon as the necessary laboratory and clinical information has been supplied. If the Council is slow in passing judgment it would seem incumbent upon the physicians, regardless of the latitude of choice allowed him under the law, to be even more cautious before he advises the ingestion of little known and little understood drugs.

It is only through dependence upon such a fact finding body that the physician can hope to be safe in his choice of therapeutic agents. Even in those instances when experience leads the Council to reverse an earlier acceptance the physicians must realize that such reversal is based upon the accumulation of information assembled from sources not likely to be available to the individual practitioner. For the welfare of the patient and for the sake of his own reputation the physician would be wiser to abide by the decision of the Council.

The manufacturing pharmaceutical house should take heed from the tragic rôle played by diethylene glycol in awakening the country to the loopholes in present laws. They must insist upon adequate experimental evidence of safety and controlled clinical experience before allowing therapeutic agents of doubtful potency and merit to be sold. Finally, they must be shown that organized medicine is going to depend more and more upon the products of those houses of high ethical standing who make every effort to abide by the decisions of the Council on Pharmacy and Chemistry of the American Medical Association. Such cooperation cannot fail to promote the public health, not only as it insures the therapeutic merit of the various preparations but also as it insures against immediate death or remote liver or kidney damage arising from the prescription of potentially dangerous products.

In the meantime the nation at large can give serious consideration to the need for revision of the law looking toward the enactment of such measures as will prevent a repetition of the present tragedy.

STRICTER DRUG LAWS URGED BY DEPARTMENT OF AGRICULTURE

On page 452 appears a comment on the recent deaths from the administration of elixir

of sulfanilamide (The Choice of Therapeutic Agents).

Since the writing of this editorial news dispatches from Washington carry the information that Secretary of Agriculture Henry A. Wallace has recommended a legislative program to Congress to protect the public against drugs such as elixir of sulfanilamide. In requesting Congress to strengthen the laws governing drugs to protect the public against dangerous and inherently dangerous articles, Secretary Wallace submitted a four point legislative program as amendments to the present Pure Food and Drug laws. The program follows:

1. License control of new drugs to insure that they will not be distributed generally until experimental and clinical tests have indicated they are safe for use.
2. Prohibition of drugs which are dangerous to health when administered according to the manufacturer's direction for use.
3. Requirement that drug labels bear appropriate directions for use and warning against probable misuse.
4. Prohibition of secret remedies by requiring that labels disclose fully the composition of the drugs.

COMMITTEE OF PHYSICIANS

The following statement is reprinted by order of the Council from the *Journal of the American Medical Association* of November 27, 1937.

The Board of Trustees has especially authorized the publication of the following statement:

Following the publication of the report of the American Foundation Studies in Government, a small group of physicians, assembled in New York, developed certain principles and proposals which have since been circulated by a self-appointed Committee of Physicians among the medical profession of the United States, with a view to obtaining signatures in their support. During a period of approximately six months, some 430 medical men have apparently permitted the use of their names. Early in November the self-appointed group of physicians released to the press for Sunday, November 7, a statement of principles and proposals to which the names of the 430 signers were affixed. The newspapers generally heralded this action as a revolt against the American Medical Association, in a great majority of the cases indicating that there was a revolt in behalf of "state medicine." The publication of this manifesto and the attached signatures has been heralded with glee by many of those who have been opposing the American Medical Association in behalf of cooperative practice, sickness insurance, and various fundamental changes in the nature of

the practice of medicine. Within the last week another series of proposals has come from another self-appointed group requesting signatures of physicians. This series of proposals includes the suggestion for enabling legislation for sickness insurance.

The American Medical Association is an organization of physicians along strictly democratic lines. Representatives of county medical societies send delegates to state medical societies and these, in turn, send their delegates to the House of Delegates of the American Medical Association. It is possible for any physician, through his delegate, to obtain consideration of any proposal which he may wish to bring to the attention of the House of Delegates. At the Atlantic City session the delegates from New York State presented these principles and proposals, slightly modified, as an action of the House of Delegates of the New York State Medical Society. They were carried before a reference committee and, in several sessions of that reference committee, considerable numbers of physicians presented arguments for and against their adoption. The House of Delegates, however, after thorough consideration of the report of the reference committee, and with full cognizance of the method of development of these principles and proposals, and of the considerations which were involved in their passage by the House of Delegates of the New York State Medical Society, did not accept them. The House of Delegates did, however, point out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part.

Why, then, any necessity for the circulation of petitions presenting proposals for fundamental changes in the nature of development, distribution and payment for medical service? Is there a well designed plan to impress the executive and legislative branches of our government with the view that the American medical profession is disorganized, distrustful of its leaders, undemocratic in its action and opposed to the best interests of the people? Who may profit from such evidence of disorganization? Is there any evidence that the self-appointed Committee of Physicians and the 430 physicians who have affixed their names to these principles and proposals are any better able to represent the opinion of the American medical profession than the democratically chosen House of Delegates of the American Medical Association—one of the most truly representative bodies existing in any type of organized activity in this country today?

The House of Delegates has given its mandate to the Board of Trustees, to the officers

and to the employees of the Association. That mandate opposes the principles and proposals emanating from the Committee of Physicians, and equally the new proposals. If the House of Delegates sees fit to depart from the principles now established, it will be the duty of the Board of Trustees, the officers and the employees of the American Medical Association to promote such new principles as the House of Delegates may establish. Until, however, the regularly chosen representatives of the 106,000 physicians who constitute the membership of the American Medical Association (now the largest membership in its history) determine, after due consideration, that some fundamental change or revolution in the nature of development, distribution and payment for medical service in the United States is necessary, physicians will do well to abide by the principles which the House of Delegates has established. They will at the same time deprecate any attempts inclined to lead the executive and legislative branches of our government, as well as the people of the United States, into the belief that the American medical profession is disorganized.

Members of the medical profession, locally and in the various states, are ready and willing to consider, with other agencies, ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such services and not able to meet the full cost thereof. The American Medical Association has reaffirmed its willingness on receipt of direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation, together with any facilities of the Association. Thus far, no call has come from any governmental or other qualified agency, for the cooperation of the American Medical Association in studying the need of all or of any groups of the people for medical service, to determine to what extent any considerable proportion of our public are actually suffering from lack of medical care. The offer still stands as evidence of the willingness of the American Medical Association to aid in finding a solution to any or all of the problems in the field of medical care that now prevail.

CRYPTORCHIDISM

The human testicle serves two important purposes. The first has to do with the process of spermatogenesis and is intimately related to the preservation of the species; of itself it would seem of relatively less importance than the second function which has to do with the development of the so-called secondary sexual characteristics. These secondary sexual characteris-

tics are mediated through the interstitial cells of Leydig which are differentiated from cells of the seminiferous tubules, that is, from the cells charged with the preparation of sperm. Under conditions of normal growth the human testes descend into the scrotum during the eighth month of intrauterine life. Experiment has clearly shown that failure of testicular descent is accompanied by failure of testicular growth. The higher temperature within the abdomen as compared with that in the scrotum has been generally considered as the agent responsible for this lack of development and this assumption is generally regarded as correct whether the testes lie in the abdomen or in the inguinal canals.

Cryptorchid boys may show otherwise normal growth although in an appreciable percentage of cases there are other evidences of disturbance in the endocrine gland system. Regardless of the presence of other signs of endocrinopathy the cryptorchid boy is particularly likely to suffer a tremendous psychologic handicap as he realizes the difference that exists between himself and other boys. Over-emotional, he may be shy, restless, inclined to solitude and show unmistakable "feminine" traits. This disturbance in the psychogenic sphere is of much more importance in determining therapy than the purely physical loss of procreative power that may befall him in after life because of the absence of viable testicular tissue.

Missouri physicians, notably Werner¹ who was followed by Sexton,² have been foremost among those who have insisted upon the adequacy of hormonal therapy in cryptorchidism. He justly condemns the fallacy of observation in the hope that spontaneous descent may occur; should it fail to take place by the age of puberty irreparable harm may already have been done. The use of suction devices, while they may occasionally prove valuable, would appear psychologically indefensible on account of the unnatural interest which they focus on the genital organs of the impressionable boy. Surgery unless there is an associated hernia is often unsuccessful and, since the discovery of potent hormone extracts, should be used secondarily rather than primarily. In those cases in which the latter fails a judicious combination of surgery and endocrine treatment may prove successful.

In fifteen of twenty instances of undescended testicle Sexton was able to bring about descent by the injection of anterior pituitary-like substances in various dosage over variable periods of time. From his experiences he draws the conclusion that this hormone should be injected over a period of about eight weeks in a dosage

1. Werner, A. A., et al.: Effect of Antuitrin (Gonadotropic) in Cryptorchidism, *J. A. M. A.* **106**:1541, (May) 1936.

2. Sexton, D. L.: Treatment of Undescended Testes, *Endocrinology* **20**:781, (November) 1936.

of 4800 R. U.; if descent fails to occur therefrom surgery may be considered. Of the utmost importance is the fact that he has observed no deleterious or harmful effects on the endocrine or other structures of the body through the use of this hormone. In those individuals with other constitutional abnormalities treatment should of course be directed toward the correction of those conditions as well as toward inducing testicular descent.

Experience with a large series of patients has led Hess and Kunstadter³ to share the enthusiasm for hormone therapy manifested by other observers. Of their thirty-nine boys treated with various anterior pituitary-like extracts complete descent occurred in three fourths (72 per cent). Therapy is more likely to prove successful in those instances in which both testicles are undescended than in those with only one testicle undescended, in 86 as opposed to 30 per cent. Expressed in another way, complete failure of treatment occurred in 40 per cent of those with only one testicle undescended as compared with 11 per cent of those with both testicles undescended. While unfavorable immediate reactions to the injections necessitated the abandonment of treatment in one case these investigators, like Werner and Sexton, have seen no untoward effect from administration of the hormone. In particular there has been no instance of precocious development or testicular degeneration and secondary eunuchoidism in patients observed over a period of four years.

Hess and his coworkers have proposed a biologic test to aid in the selection of those patients in whom endocrine therapy is likely to prove beneficial. Normal anterior pituitary gland activity is indicated in young children by the urinary excretion of gonadotropic hormone. As the testes mature this hormone disappears from the urine, being used up completely in the maturation process. Hence it may be expected that the demonstration of this substance in the urine of prepubescent boys indicates the presence of normal pituitary tissue. On the other hand, its absence may mean one of two things: Either that the pituitary is inactive in which case obvious clinical signs of pituitary insufficiency would be expected, or that the testicles are using up all of the available supply. In the latter event it may be presumed that the administration of additional amounts of hormone will produce testicular descent. Since one testicle alone, if in the scrotum, may use up all of the available gonadotropic hormone, it may not necessarily be concluded that the absence of such substances in the urine is evidence of pituitary

insufficiency. In the normal adult male this hormone is ordinarily not found in the urine.

The age at which treatment should begin is debatable. There is a natural tendency to avoid frequent hypodermic injections in young children. Yet it has been shown that retrogressive changes in the cryptorchid testicle may begin as early as the third year; spermatogenesis has frequently been found faulty in cryptorchid testicles removed during adult life. Hence it would appear that if the psychologic as well as the physiologic defects associated with the condition are to be corrected, treatment should begin early and certainly by the fifth birthday.

Huhner⁴ has been so greatly impressed by the success of hormone therapy for undescended testes that he makes the categorical statement that "At present no case should be submitted to operation before a trial of [anterior pituitary-like substances] . . . even in those cases first seen after adolescence."

THE WOMEN'S FIELD ARMY PROGRAM AND THE PHYSICIAN

After a year's experience the Women's Field Army against Cancer of the American Society for the Control of Cancer is extending its work into practically every state. This program is unique in the history of health education movements in that from the beginning the medical profession has been asked to direct the work. In every state lay leaders have been appointed only with the approval of medical organizations.

In this Women's Field Army plan lay speakers are discouraged from speaking on the scientific aspects of cancer. This phase of the program has been placed in the hands of physicians in the belief that a physician is the properly qualified person to discuss this subject before lay groups. The activities of lay workers are restricted to organization and other problems. Thus the program is being developed along lines most favorable to the physician; but also there is placed on the physician the responsibility of making the program effective.

The program is built on the knowledge that early cancer is curable, and to detect it in early stages the periodic examination of the apparently well individual must be employed. As a result of the public discussion of this subject thousands of persons for the first time have sought examination by their physicians to determine the presence or absence of cancer. As the program develops thousands more will ask for this same service. This makes it essential that physicians conduct these examinations for

3. Hess, J. H., and Kunstadter, R. H.: Clinical Evaluation of Hormone Treatment of Cryptorchidism, *J. Pediat.* **11**:324, 1937.

4. Huhner, M.: *Sexual Disorders*, Philadelphia, F. A. Davis, p. 41, 1937.

precancerous lesions as well as signs of early cancer in as thorough and painstaking a manner as possible. A patient requesting such an examination is entitled to the best service the physician can give regardless of objective absence of disease. After obvious signs of cancer appear it is often too late to render a curative service; therefore, no physician should make light of any patient's request for examination.

No physician should hesitate to avail himself of facilities for obtaining the answer to the patient's problem when such facilities are not at his immediate disposal. The diagnosis and treatment of cancer is a group problem and no physician has the ability alone to cope adequately with all forms of the disease.

One criticism emanating from medical sources is that a lay cancer educational program will create a cancerphobia in the public mind. In answer it should be remembered that an intelligent request for information about cancer is not cancerphobia; also, that cancerphobia never metastasizes and never kills.

Another criticism coming from a few laymen is that this emphasis on periodic examinations is but a dodge on the part of the medical profession to increase its income. Such criticism should not be taken seriously and should be answered by pointing out that only by early diagnosis and treatment can the cancer patient be saved from an untimely death. If the profession wanted to profit from this situation it could do so in far greater measure by neglecting the early stages of cancer knowing that the care of the incurable patient would be far more prolonged and remunerative.

With this opportunity for constructive participation in a nation-wide health education movement the physicians of Missouri should see to it that no patient is denied the fullest possible measure of service within the power of physicians to render. Only by such a service can they expect to retain direction of this program.

NEWS NOTES

The St. Louis Medical Society held its annual pilgrimage to the grave of William Beaumont in the Bellefontaine Cemetery, St. Louis, on November 21.

Dr. August A. Werner, St. Louis, was a guest of the Iowa State Medical Society Postgraduate Committee at two recent meetings. He spoke at Sheldon, Iowa, on November 1 and at Waterloo, Iowa, on November 2, on "Gonad Hormones in Health and Disease."

Dr. Sherwood Moore, St. Louis, addressed the Trudeau Club of St. Louis at their meeting on November 4 on "Demonstration of the Laminagraph and Its Clinical Application."

The Jackson County Medical Society had as its guest on November 2 Dr. Chevalier L. Jackson, Philadelphia, who spoke on "Bronchial Obstruction With Special Reference to Tumors of the Bronchi."

By order of the Council every member who is not in good standing after January 1, 1938, will be automatically suspended from membership. The payment of dues for 1937 was past due on April 1, 1937. If you are in arrears please see your secretary as soon as possible.

Dr. Henry F. Vaughan, Health Commissioner of Detroit, was a guest at the annual meeting of the Kansas City Tuberculosis Society on November 3. Physicians in charge of the program were Drs. Abram Miller, Sam Snider, Edwin H. Schorer and Morris B. Simpson, Kansas City.

The Mississippi Valley Medical Society will hold its 1938 meeting at Hannibal in September. Dr. M. Pinson Neal, Columbia, was elected president-elect at the last meeting held in Quincy September 29 and 30 and October 1. Dr. W. F. Francka, Hannibal, was elected vice president from Missouri.

The Tuberculosis and Health Society of St. Louis will hold its thirty-first annual meeting as a luncheon at the Hotel Statler, St. Louis, on December 6. Dr. George M. Warfield, Milwaukee, Wisconsin, will be the guest speaker and his subject will be "Public Health—Yesterday, Today, Tomorrow."

The St. Louis Society for the Blind will hold its annual meeting at the Missouri School for the Blind, St. Louis, on November 17 at 8 p. m. Mrs. Winifred Hathaway, New York, Associate Director of the National Society for the Prevention of Blindness, will speak on "How to Make a Little Sight Go a Long Way."

The State Cancer Hospital for Indigents, authorized by the last session of the legislature, will be erected near Columbia, north of the city limits and near Highway 40. Dr. Ellis Fischel, St. Louis, chairman of the commission to select the site of the hospital, announced that plans would be drawn at once and construction will begin early in the spring.

Application blanks are now available for space in the Scientific Exhibit at the San Francisco Session of the American Medical Association, June 13 to 17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms. Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

The Association has established at Headquarters office a "Placement Service" for eligible physicians desiring locations. A number of physicians in rural communities in Missouri desire assistants with a view of retirement from practice and other communities are without physicians. These locations are especially desirable for young physicians. Any physician interested may address the Missouri State Medical Association, 623 Missouri Building, St. Louis.

Mr. Henry Kendall Mulford, the founder of the H. K. Mulford Company, manufacturers and distributors of pharmaceuticals, died on October 15, aged 71. Mr. Mulford started his drug career at the age of 18. He received his technical education at the Philadelphia College of Pharmacy. He was a pioneer in the production of antitoxins and medicinal colloids and was the first in this country to supply diphtheria antitoxin for use by the medical profession distributed through pharmacists. He was founder of the company which bears his name and the Mulford Colloid Laboratories. The degree of Master in Pharmacy was conferred on him by the Philadelphia College of Pharmacy and Science in 1933.

Dr. James Stewart, Jefferson City, was re-elected president of the Missouri Tuberculosis Association at its meeting in Jefferson City, October 15 and 16. Dr. Jesse E. Douglass, Webb City, was elected first vice president, and Dr. George H. Hoxie, Kansas City, second vice president. Among directors elected were the following physicians: Drs. H. Peterson and E. M. Shores, St. Joseph; H. A. May, Washington; L. J. Schofield, Warrensburg; J. H. Summers, Lebanon; B. T. Koon, Perryville; L. E. Belding, St. Charles; H. I. Spector, St. Louis; Newell R. Ziegler and Dudley S. Conley, Columbia; George H. Hoxie and W. W. Buckingham, Kansas City; Harry F. Parker, James Stewart and Irl B. Krause, Jefferson City; E. E. Glenn, Springfield, Jesse E. Douglass, Webb City, and George D. Kettelkamp, Koch.

The United States Civil Service Commission announces open competitive examinations for the positions of principal specialist in maternal and child health, senior specialist in maternal and child health, specialist in maternal and child health and associate in maternal and child health. Applications must be on file with the United States Civil Service Commission at Washington, D. C., not later than December 28. The necessary application forms may be obtained from the Secretary, Board of United States Civil Service Examiners; at any first class post office, or the United States Civil Service District Office, Federal Building, St. Louis.

The American Public Health Association at its session in New York, October 5 to 8, passed resolutions on the following: Reiterating the attitude of the Association toward the removal of public health administration from political interference and control; favoring a congressional appropriation for a minimum of two years for a nation-wide statistical survey of the accident problem; supporting the development of more adequate diagnostic services for the control of syphilis; supporting the Vinson Bill as the best procedure and organization for lessening the danger to public health from stream pollution; pledging active support to measures which seek to secure better maternal and neonatal care; authorizing a special committee to study the public health aspects of medical care, especially of chronic diseases. Dr. Arthur T. McCormack, Louisville, was installed as president of the association. The 1938 session will be held in Kansas City, Mo.

The Section on Medical Sciences of the American Association for the Advancement of Science will sponsor a symposium on "Syphilis" at the next annual meeting to be held in Indianapolis, Indiana, from December 27 to January 1. Morning and afternoon sessions on December 28 will be devoted to "Syphilis," the morning session titled "Historical; The Causative Agent," and the afternoon symposium, "Closely Related Agents, Immunity, Pathology." Various phases of the subject will be covered in the morning session on December 29 and in the afternoon "Diagnostic Aids" will be discussed. "Treatment, Chemotherapy and Toxicity of Drugs" will be the symposium on the morning of December 30. At the evening program on that day Dr. Thomas Parran, Surgeon General, United States Public Health Service, will speak on "Syphilis: A Public Health Problem." Dr. Charles C. Dennie, Kansas City, will appear on the program and speak on "Congenital Syphilis."

The Jackson County Medical Society celebrated the quarter-centennial of its library as a memorial to the late Mrs. Rosa M. Hibbard on November 9 at the auditorium of the Kansas City General Hospital, Kansas City. A bronze plaque in memory of Mrs. Hibbard, who was the first librarian and served through the entire twenty-five years, was unveiled. The program consisted of the following presentations: "Library Aspirations," by Dr. E. H. Skinner, Kansas City; "Tribute to Rosa M. Hibbard," Dr. Richard L. Sutton, Sr., Kansas City, and "The Doctor Makes Literature," Dr. Morris Fishbein, Chicago. The Jackson County Medical Society Library was started as the Kansas City Medical Library Club with the first recorded meeting on January 25, 1912. In 1921 the Club was amalgamated with the Jackson County Medical Society. The club first had space on the top floor of the then new Rialto Building. The library now occupies about 5000 square feet of space on the second floor of the Kansas City General Hospital and has more than 25,000 books and bound volumes of journals.

The following members have accepted invitations of the Postgraduate Committee, the Cancer Committee and the McAlester Foundation of the State Association to deliver addresses at meetings of the component societies and lay audiences:

Drs. Andy Hall and O. P. Hampton, St. Louis, were guests of the South Central Counties Medical Society at West Plains on September 23. Dr. Hall spoke on "Urologic Problems of the General Practitioner" and Dr. Hampton discussed "Fractures."

The Boone County Medical Society sponsored addresses before students in Columbia on October 21 on "Appendicitis." Dr. E. Lee Miller, Kansas City, presented the addresses. Dr. E. P. Heller, Kansas City, was a guest of the Boone County Medical Society on November 2 and spoke on "The Business End of the Practice of Medicine."

The Dallas-Hickory-Polk Counties Medical Society had as guests at Humansville on November 2 Drs. Harry L. Gainey and Russell W. Kerr, Kansas City. Dr. Gainey spoke on "Cancer of the Uterus and Cervix" and Dr. Kerr talked on "Cancer of the Breast."

On November 5 Drs. G. O. Broun and Peter Danis, St. Louis, were guests of the Marion-Ralls County Medical Society at Hannibal. Dr. Broun spoke on "Encephalitis" and Dr. Danis on "Poliomyelitis."

The Randolph-Monroe County Medical Society had as guests at Moberly on November 9 Drs. Charles F. Sherwin and P. C. Schnoebelen,

St. Louis. Dr. Sherwin discussed "Surgical Treatment of Cancer of the Stomach and Esophagus" and Dr. Schnoebelen spoke on "Roentgen Ray Examination in Cancer of the Stomach and Esophagus."

Drs. August A. Werner and Ralph L. Cook, St. Louis, were guests of the Chariton County Medical Society at Rothville on November 17. Dr. Werner spoke on "Clinical Application of Pituitary and Ovarian Hormones in Regard to Uterine Function" and Dr. Cook discussed "Children's Diseases of Infectious and Contagious Types."

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Abbott Laboratories

Ampoules Procaine Hydrochloride Solution,
2%, 100 cc.

Armour & Co.

Liver Extract—Armour

Ernst Bischoff & Co., Inc.

Aminophyllin—Bischoff

Tablets Aminophyllin—Bischoff, 0.1 Gm.
(1½ grains)

Flint Eaton & Co.

Calcium Gluconate Effervescent—Flint

Gane & Ingram, Inc.

Sulfanilamide

Eli Lilly & Co.

Merthiolate Suppositories 1:1000

National Biological Distributors, Inc.

Bismuth Subsalicylate in Oil

Parke, Davis & Co.

Sulfanilamide

Tablets Sulfanilamide, 5 grains

Staphylococcus Toxoid

Rare Chemicals, Inc.

Gitalin (Amorphous)

Sharp & Dohme

Ephedrine

Ephedrine Hydrochloride

Capsules Ephedrine Hydrochloride, ⅜
grain

Solution Ephedrine Hydrochloride, 3 per
cent

Ephedrine Sulfate

Ampoules Ephedrine Sulfate, ¼ grain

Capsules Ephedrine Sulfate, ⅜ grain

Capsules Ephedrine Sulfate, ¼ grain

Solution Ephedrine Sulfate, 3 per cent

Ampoules Bismuth Subsalicylate, 2 Grains
in Oil, 1 cc.

Bismuth Subsalicylate in Oil, 2 ounce bottle

E. R. Squibb & Sons

Elixir Ipral Sodium

Staphylococcus Toxoid

A "Golfers' Special" to the San Francisco meeting of the American Medical Association is being organized by the American Medical Golfing Association. Physicians who like golf mixed with their travel will find five games arranged on the trip out to the coast for the American Medical Association meeting of June 13, 14, 15, 16 and 17, 1938, and three games on the return trip through the Northwest. The first game will be played in New Orleans, reached by the steamship, S. S. "Dixie," from New York or via a rail itinerary, on Tuesday, June 7, 1938. Other stops include Houston, Galveston and San Antonio, Texas; Los Angeles and Del Monte, California; and finally San Francisco where the American Medical Golfing Association tourney will be held on Monday, June 13. The return trip includes Portland, Oregon; Seattle, Washington; Vancouver, B. C.; Lake Louise and Banff, St. Paul and Chicago. Non-golfers as well as golfers, and their ladies, are welcome and will find the A. M. G. A. Special a glorious experience. For full particulars write Dr. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City, New Jersey, the President of the A. M. G. A., or Bill Burns, Executive Secretary, 2020 Olds Tower, Lansing, Michigan.

MISCELLANY

COMMITTEE ON MATERNAL WELFARE

Suggestions for the Management of the Third Stage of Labor

If following the delivery of each patient, all blood loss is collected, measured and recorded, fundamentals will be followed. Some standard of blood loss should be established. From our own case records we would suggest that 250 cc. blood loss or less is normal. From 250 cc. to 500 cc. blood loss is excessive and 500 cc. or more blood loss is a hemorrhage.

Our routine has been as follows: With the delivery of the child and the escape of the amniotic fluid, a vessel is placed against the perineum, and a clamp is placed on the cord against the vulva. The uterus is lifted upward and forward and no massage is practiced unless blood loss necessitates a firmer contraction of the uterus. An ampule of pitocin is given; in time the uterus changes in shape and the cord clamp drops down. If, and may I emphasize if, the uterus is well contracted only gentle pressure is necessary to express the placenta, and may I emphasize—only gentle pressure is necessary.

We have discontinued the routine massaging of the uterus since we have found that our blood loss is not only less, but many times we have felt that a placenta has been partially or completely separated that necessitated avoidable interference. We would caution that the uterus be firmly held and that when massaging the lumen of the uterine cavity be not interfered with. Likewise we have discontinued the routine use of pituitrin before the placenta has been delivered. In our series when pituitrin was routinely used a partial

or complete separation of the placenta with bleeding was seen. The cervix contracted down to the point where the separated placenta could not be expressed for hours or necessitated interference. Besides these complications, structures in the cornu of the uterus were seen that we are certain was not accidental. For two years we have been using pitocin and to date can report no recognized complication. However, I am convinced that the management of labor with exhaustion, poor anesthetic and over sedation is directly influencing the blood loss in the second stage of labor.

We are also awaiting the delivery of the placenta and to such a time as we are certain that the uterus is well contracted before any repair is done since too often 200 cc. to 300 cc. of blood may be lost, especially if ether is given.

Finally, may I say these suggestions are offered from personal experience. B. G. H.

TUMOR CLINIC

The Committee on Cancer of the Missouri State Medical Association has received the October regular monthly report of the activities of the Tumor Clinic at the State Hospital at Fulton. Since this report shows activities which are typical of preceding months, it is published to demonstrate the scope of the work at the clinic. The report follows:

The Tumor Clinic has continued to be active through the month of October, having about our usual recent run of patients.

Sixteen new patients were admitted to the clinic with a total of forty-five visits. Eighteen radium treatments were given and the following surgical work was done: Dissection of axillary lymph nodes, 1; radical breast resection, 1; cautery excision of nodule of the anterior chest wall, 1; biopsy of breast, 1; cautery excision of carcinoma of the ala nasi, 1; biopsy of cervix, 1, and biopsy of lesion of the skin, 2.

The following counties each sent in one new patient: Miller, Marion, Callaway, Clark, Howard, Boone, Monroe, Ralls, Gasconade, and Newton. Randolph and Greene counties each sent two patients.

Dr. T. S. Lapp, a member of the Tumor Clinic, makes the following notation, "Our new hospital building is nearing completion. We are anxiously awaiting the remainder of the equipment. The roentgen ray contract was let last Monday and we hope we will have our equipment soon. We are especially in need of the additional facilities that the deep roentgen ray therapy will afford us." The new hospital will have thirty-six beds set aside for the care of indigent cancer patients.

OBITUARY

CLARENCE ALLEN GOOD, M.D.

Dr. C. A. Good, St. Joseph, a graduate of the University of Michigan Medical School, 1898, died at Rochester, Minnesota, July 20, 1937, following an illness which began with an attack of influenza more than two years before. He was 62 years old.

Dr. Good was born in Richfield, Michigan. After completing his medical studies he was assistant physician and pathologist in a Michigan sanatorium and was assistant in pharmacology at the University of Michigan. He practiced for a time at Francisc City, Michigan. He went to St. Joseph in 1904 and remained in active practice there until the time of his illness.

Early in his career he became a member of organized

medicine and was active in the Buchanan County Medical Society throughout his life. He had served the Society as president and as delegate to Annual Sessions. He was a member of the Sigma Xi and Nu Sigma Nu fraternities.

He is survived by his widow, Mrs. Sophia Evans Good, and two sons, Drs. C. A. Good and C. E. Good, Rochester.

STEPHEN A. RUSSELL, M.D.

Dr. Stephen A. Russell, Fairview, a graduate of the University of Tennessee School of Medicine, 1892, died July 2, 1937, of a complication of diseases which had impaired his health for several months. He was 67 years old.

Dr. Russell was born at Big Springs in the Fairview community and after completing his medical studies he returned to his home community to begin his practice.

He was a member of the Newton County Medical Society. He was active in civic work, schools, road building and politics. He was a leader in Democratic affairs in the eastern part of the county and served on the county committee and often was sent as a delegate to party conventions. He was a member of the Masonic lodge at Neosho.

Surviving are his widow, four sons, a daughter, two brothers and eleven grandchildren.

REINHOLD WILLMAN, M.D.

Dr. Reinhold Willman, St. Joseph, a graduate of the Ensworth Medical College, St. Joseph, 1902, died June 14, 1937, in a hospital in Kansas City where he had been ill for six months. He was 81 years old.

Dr. Willman had long been a resident of St. Joseph and was well known and esteemed by many friends and his colleagues. He had once lived where the City Hall now stands.

He became a member of the Buchanan County Medical Society soon after beginning his practice. He was elected an honor member of the Society in 1930.

Surviving are a daughter, a brother, a nephew and a cousin.

Books for Leisure Moments

Three fourths of the cities of this country having a population greater than 10,000 persons have some form of health inspection in the public schools; of these, approximately three fourths are under the control of the Board of Education, the other fourth under the control of the local health department. The net result of this far flung system of medical service is that most of the twenty-five million children in the nation's schools receive more medical attention than do their parents. The part that organized medicine thus plays in the lives of the nation's youth is of much importance to the profession at large for the powerful influence brought to bear on impressionable minds. Since the regular system of medicine is the only one legally recognized by these various Boards of Education the child is brought into intimate contact with the beliefs and practices of that healing agency to the exclusion of all others. Over a period of years it may be expected that this association with the profession will go far toward the eradication of those cultists and other nonmedical healing agencies which at all times threaten the national health.

Sometimes physicians do not understand the work

of the school doctor; those, at least, should read "School Health Problems" by Chenoweth and Selkirk (F. S. Crofts & Co., New York). The former is Professor of Hygiene at the University of Cincinnati, the latter, a pediatrician attached to some of the school health activities in Cincinnati.

Health activities of themselves may be carried on by the class room teacher in the form of didactic instruction as to diet, sleep, etc. The teacher may even make a superficial inspection of each pupil on his arrival at school in the morning to detect evidence of contagious disease as manifested by a running nose or a skin rash. But a physician is necessary to give impetus to these various health activities. He should be consulted to determine which child suspected of contagion is actually a menace to the other children of the school and should therefore be sent home. That was the old concept of the part to be taken by the physician in the school program.

The modern program envisages a series of regular physical examinations designed to detect not the ordinary contagious diseases but the first manifestations of departure from the functional integrity of the various organs that early treatment may be obtained from the family physician. In this manner defective vision and hearing, nutritional disturbances, heart disease even, are found and referred to the family physician for further investigation and therapy. It may be assumed that each child should have a regular annual examination by the family physician, that hence the services of the physician in the school are not required to this end. In theory, fine; in practice, a rare occurrence. Parents may mean to take the child for an annual evaluation of the physical mechanism but in the hurry of other attractions they neglect to do so. Hence the school physician who is regularly assigned to the duty of determining the physical status of the child becomes a necessity of the modern school system.

For the guidance of the school doctor Chenoweth and Selkirk recapitulate the pertinent facts of metabolism, anthropometry, contagion, etc. Their advice is sane and clear; numerous illustrations, although not always as well reproduced as might be wished, clarify much of the textual matter. On the whole, they have brought their volume quite up to date, however, the discussion of the endocrine glands and the part they play in determining behavior leaves something to be desired, perhaps that scientific investigation had really elucidated the part played by these glands to the extent indicated by the authors. Failure to recommend the multiple puncture method of vaccination in preference to the scratch and burr method is noted as one of the minor defects of the volume.

Chapter XIV entitled "Mental Hygiene" introduces a subject of increasing concern to persons charged with the development of children, with fostering healthy attitudes of mind and action. Each child must be considered an individual, more consideration accorded to the problem which he presents to the curriculum than to the problem which the curriculum presents to him. Only wholehearted cooperation of parents, teacher, school physicians (who have enough psychiatric training to distinguish the presence of these emotionally maladjusted individuals), guidance clinics and social workers will solve the difficulties presented by these children and prevent them from later becoming a burden to society.

B. Y. G.

I suppose there is no more trite nor oft-repeated saw than that dealing with the disposal of the doctor's mistakes. Nor am I aware that the doctor has hitherto had an apt rejoinder for those protagonists whose chief delight is to taunt him. Now he may refer his

ungentle critic to a whole book, to 599 pages of book followed by twelve pages of index, for refutation. Therein may be discovered what medicine has done in the last quarter century, how it has prolonged human life, reduced the incidence of disease, in short it may be discovered that the modern doctor actually makes fewer mistakes than his predecessors. Of course, in view of the tremendous diffusion of diagnostic facilities and the attention which has been given to accurate therapy such an improvement is to be expected. Ordinarily a dissertation on health or death is bound to depend largely upon the presentation of statistics, the third type of liar defined in many a popular jest. But in this case the high regard in which the statisticians are held will negate any serious charge of this kind.

The Metropolitan Life Insurance Company has been foremost among the nonmedical and nongovernmental agencies which have voluntarily taken over the task of spreading good medical care, of educating the general public to expect good medical care, of spreading the gospel of good living in order that inevitable dissolution may be forestalled. Under the general direction of their vice-president, Louis I. Dublin, Ph.D., they have from time to time published the results of inquiries into factors affecting health and longevity. Only a year ago Dr. Dublin and his assistant, Alfred J. Lotka, published "The Length of Life," in which they portrayed the knowledge to be gained from a study of the life table and the various factors that influence it. Now the same authors offer "Twenty-Five Years of Health Progress," an exhaustive analysis which is privately printed by the company for distribution to specialists in the field of public health.

"If one were asked," the authors write, "to summarize in a single figure the remarkable advances made in these twenty-five years (1911-1935), one might reply that within this short period the average duration of human life in the group here studied (industrial policyholders of the Metropolitan Company) had been extended by nearly fourteen years; that is, by approximately 30 per cent. . . . This is due to the remodeling of national life in the light of modern understanding of sanitary science." Tuberculosis has been toppled from first to seventh place as a cause of death in these twenty-five years, the death rate declining from 242 to fifty-six per 100,000 persons. The improvement in working conditions, in housing facilities, shorter work weeks with a lessened drain upon the physical reserves of the worker, larger pay envelopes permitting more adequate diets, utilization of the methods of preventive medicine and wider availability and employment of trained physicians, these are some of the factors that have combined to improve the mortality (and it may be expected morbidity) experience of the more than a third of a billion years of life that enter into this latest study of this large life insurance company.

It is to be expected that the introduction of immunizing procedures against diphtheria would lessen the incidence of that disease but it is indeed surprising to learn that the common contagious diseases of childhood have all shown a lesser incidence during the period covered by the study, that the death rate from these diseases declined from 145 to twenty-eight per 100,000. Even though there have been no specific measures directed toward their eradication the deaths from whooping cough, scarlet fever and measles, all have shown significant drops during the last twenty-five years. Either the causative agents of these diseases are undergoing a recession of virulence with the possibility that they will resume their former virulence at some later date or the sturdier child who is now being nurtured in this country is better able to withstand their ravages.

There has been a tendency toward a fall in the death

rate from pneumonia and influenza (statistically considered together by reason of certain methods of reporting deaths). Nevertheless "if serum treatment were widely applied throughout the country, the mortality from lobar pneumonia could be reduced one half." Such evidence explains the interest which the Metropolitan Company currently exhibits in the dissemination of information leading to the wider employment of serum therapy. It even gives special support to the work of the New York Bureau of Pneumonia Control.

One of the surprising findings reported in the volume is concerned with the mortality from cancer. Probably there is no real increase in the incidence of the condition. The standardized death rate from cancer increased from seventy-six per 100,000 at the beginning of the study in 1911 to only eighty-seven at the end of the twenty-five year period. There is an apparent slight decrease in the incidence of cancer in females. The reason that cancer advanced from seventh to second place as a cause of death during this period lies in the fact that more people are living into the cancer age since they have not been killed by the other diseases to which their ancestors were so likely to succumb. There has been an increase in the number of cancer deaths among males but this, again, is more apparent than real. It finds its explanation in the fact that improved diagnostic facilities have uncovered more cancers in the inaccessible regions than formerly; to quote a single instance, the death rate from cancer of the rectum and intestines climbed from eight per 100,000 in 1911 to fifteen in 1935. It is altogether probable, especially in the light of other information, that nearly half the cancers arising in these areas were not diagnosed in the earlier years.

That cardiovascular-renal disease occupies first place as a cause of death is not unexpected; indeed, it is a part of the general knowledge and one of the serious concerns of every practitioner. But here again the general trend of death from this group of diseases has been downward. The doctor has no cause for despair over the lead assumed by these diseases as a cause of death except in those instances arising out of specific infection.

But I am going on with the refutation of the idea that the doctor buries his mistakes when I started out only to recommend a source book for those scoffers who entertain such an idea. What I really want to point out is that the evidence here presented by Dublin and Lotka tends to show that doctors are making fewer mistakes, that they are doing a good job, that they have just reason for being proud of the tremendous strides made by scientific medicine in the last quarter century and their skill in applying the results of research at the bedside.

B. Y. G.

If the Revolutionary Army had had a well equipped medical department nearly all of the North American continent might now be part of the United States. If this medical department had been efficient fewer than nine men would have died of disease to each one that died of wounds. If the men of that period had not been so narrow, so anxious for the personal aggrandizement at the expense of the national welfare there might have been an efficient medical department. If after the conclusion of the War of the Revolution, those same men had lost the intense egotism which marked their every action the national health might have been benefited. If the adventurer into the scientific unknown were not treated with contempt, if calumny were not heaped upon his head, indeed, if his very life were not subject to almost constant threats, James Thomas Flex-

ner might never have written "Doctors on Horseback" (The Viking Press, New York).

Flexner takes for his study in this, his first book, the medical background of the formative days of the United States. He has seemingly read much and studied long to the end that he might present the picture of those stirring days but the book is hard reading. It does not flow smoothly and somehow the author seems not to have taken advantage of the mighty epic which may yet be written about these pioneer American physicians. In these respects he does no less well than the average historian concerned with this era in the medical saga.

In the America of a hundred and fifty years ago medicine had its cliques, its little groups, its ruthless individualists. At this distance and as Mr. Flexner tells the story they seem less concerned with their art than with assuring themselves a place in history, unenviable as that may be. Perhaps it is the too intense realism which the author accords his study that keeps it from maintaining the interest of the reader. All of these men whose vileness he bares to our scrutiny cannot have been all bad. That they possessed human weaknesses which made them seek their own fortune is to be believed. That they were so bereft of the essence of good breeding and humility as Flexner makes them out to be is to be seriously doubted. Had he made his characters behave like the human beings they undoubtedly were instead of as the paragons of vice which he portrays his book would probably find a wider appeal, be more than a good source book.

The eccentric John Morgan, first Surgeon-General of the American Army, was broken by the machinations of lesser men who begrudged him his position and the doubtful honor which it brought, forced to content himself with four ounces of tartar emetic when he ordered ten pounds. Displaced by William Shippen who did no better because the bitter antagonisms that fired the men of that era would not let them rest, Morgan devoted the remainder of his life to a vain attempt to vindicate his honor, refused even to serve on the medical faculty of the College of Philadelphia although he has some right to be called the Father of American Medicine.

The brilliant and bombastic Benjamin Rush, tireless in the pursuit of medical knowledge and equally tireless in turning out pamphlets upon all manner of subjects is the third character on Flexner's stage. Although he is credited with having exerted a greater power over the course of American Medicine than any other man, not even excepting the great Osler, we are not led to like him. His name is indelibly associated with the epidemic of yellow fever which decimated Philadelphia in 1793 and for which he recommended violent purging and repeated bleedings, a treatment that was to lead to his own death some years later. Since he could see only a hundred and twenty-five patients himself during the course of a day and since the other practitioners of the town repudiated his methods of treatment he caused notices to be inserted in the newspapers in which the public were advised, nay, urged to administer violent purges and to bleed themselves at the first evidence of the dread disease lest they be misled or suffer harm through the ignorance of their own physicians.

McDowell, the father of abdominal surgery, was nearly hanged by a mob gathered outside the doors of his home while he performed his famous ovariectomy on Mrs. Thomas Crawford of the Kentucky wilderness. Great as has been his influences on the whole course of medical history this fearless operator was driven from his home and his practice, forced finally to live the unexciting life of a plantation owner. Daniel Drake who rose from an ignorant farmer's son into a leading

figure of the medical west and aided in the foundation of the first western medical college, William Beaumont whose studies on Alexis St. Martin are well known, and Crawford Long and William Morton whose claims to priority in the discovery of anesthesia have never been properly settled, these conclude that group of pioneer American physicians whom Flexner has chosen for his first book.

B. Y. G.

TECHNIC OF ONLAY GRAFTS

To lessen the risks of infection, shock and hemorrhage in bone grafting for ununited fractures, Henry N. Harkins and Dallas B. Phemister, Chicago (*Journal A. M. A.*, Nov. 6, 1937), have used a simpler operation in cases of nonunion in which displacement is not marked and the position of fragments is such that if union were present the result would be acceptable. The bone of the fracture site is laid bare only on one side, leaving the attachments on the other side to help maintain position. Cancellous and whole thickness onlay grafts are applied and held in place by suturing the soft parts about them. The grafts set up osteogenesis and serve as supplementary bone but do not immediately fix the fragments to any appreciable extent. The success of the procedure is based largely on the fact that if a large onlay graft is applied across the fracture line in good contact union takes place between it and the fragment ends and then the intermediary callus ossifies, whether it is old or new. 1. The fracture is exposed through a 12 to 16 cm. incision and the periosteum incised and reflected from about one half of the circumference of either fragment for an average length of from 5 to 7 cm. 2. An even surface is created for the reception of grafts by chiseling away any protruding callus or displaced cortex. 3. The intermediary callus is usually gouged or curetted out of the fracture line in most of its extent. While union occurred in all of the fourteen cases when this callus was left in, still it is considered best to remove it when feasible, as a newly formed callus should ossify more readily than an old one. 4. One or sometimes two appropriately dimensioned whole thickness and several cancellous bone grafts are applied to the prepared surface and along the line of fracture. The grafts are taken usually from the healthy tibia. The endosteal surface is nearly always placed next to the cortex of fragments and may be trimmed to fit. In case the graft is turned over in order to obtain a more accurate fit, its periosteum is stripped off. 5. The grafts are held snugly in place in contact with the fragments by suturing the soft parts over them with interrupted sutures of 0 chromic catgut passing through the deep fascia. The subcutaneous tissues and skin are also closed with interrupted sutures. 6. A plaster-of-paris cast is applied and left on for from two to three months, depending on the case. Ununited fracture with the fragments in acceptable position has been caused to unite in thirty-eight of thirty-nine patients at the first attempt, and in the one case of failure at the second attempt. The results demonstrate that it is unnecessary to remove the new bone closing the medullary cavity of the ends of the fragments.

LeRoy A. Schall, Boston (*Journal A. M. A.*, Nov. 6, 1937), discusses five cases in which exophthalmos developed as a result of the treatment of malignant disease of the nasal sinuses. In three of these cases the condition occurred after operation and irradiation. In two it followed irradiation without operation. In the treatment of malignant tumors of the nasal sinuses he has followed the reasoning of Barnes.

COUNCILOR DISTRICT AND SOCIETY PROCEEDINGS

COUNTY SOCIETY HONOR ROLL FOR 1937

(UNDER THIS HEAD WE LIST SOCIETIES WHICH
HAVE PAID DUES FOR ALL THEIR MEMBERS)

HONOR ROLL

Perry County Medical Society, November 27, 1936.
Chariton County Medical Society, December 1, 1936.
Ste. Genevieve County Medical Society, December 15, 1936.
Dent County Medical Society, January 8, 1937.
Lincoln County Medical Society, February 16, 1937.
Benton County Medical Society, February 26, 1937.
Moniteau County Medical Society, March 29, 1937.
Barry County Medical Society, May 14, 1937.
Camden County Medical Society, May 14, 1937.
Morgan County Medical Society, May 14, 1937.

ASSOCIATE EDITORS: COUNCILORS OF THE TEN COUNCILOR DISTRICTS

FIRST COUNCILOR DISTRICT

A. S. BRISTOW, PRINCETON, COUNCILOR
Buchanan County Medical Society

The Buchanan County Medical Society was called to order at the Missouri Methodist Hospital by Dr. C. S. Branson, vice president, at 8 p. m., October 6, with thirty-five members present.

Dr. H. E. Peterson, a member of the tuberculosis committee, in discussing the testing of school children of St. Joseph for tuberculosis suggested that the doctors set a day once or twice a month to conduct the test and charge a reduced fee. It was discussed by Drs. G. A. Lau, T. L. Howden and J. M. Hughes. A motion was passed that the Society endorse the movement. The fee to be charged for making such tests was left to the tuberculosis committee.

Dr. Arthur Rosenthal's application for provisional membership was accepted unanimously.

A note was read from the National Eugene Field Memorial thanking the Society for its donation.

A letter from the medico-legal committee of the St. Louis Medical Society advising the various county medical societies of the activities and progress of the test suit to be brought to the Supreme Court of Missouri to determine the legality of the corporate practice of medicine was read.

A letter from the St. Joseph Retail Credit Bureau, suggesting a plan of credit in which the accounts of patients will be recorded and credit of these may be obtained from the bureau, was referred to the executive committee.

A letter from the Social Welfare Board asking the

endorsement of the Society for the organization of a local society for mental hygiene was referred to a committee.

Dr. M. E. Grimes, St. Joseph, gave a paper on "Adaptability of the Various Anesthetics in General Surgery and Obstetrics." It was followed by a motion picture on "Novocain Anesthetics in Obstetrics." The paper was discussed by Drs. E. E. Wadlow, Gregg Thompson and W. T. Stacy.

Meeting of November 3

The Buchanan County Medical Society was called to order at the Missouri Methodist Hospital by the president, Dr. Charles Greenberg, at 8 p. m., November 3, with forty members present.

The applications of Drs. Ralph V. Byrne and Philip Saper for provisional membership were accepted unanimously.

Dr. B. Landis Elliott, Kansas City, discussed "The Traumatic Neuroses" and gave a most interesting and complete summary of this important subject. He laid special emphasis on two points; first, the importance of a sympathetic approach in handling the patient and, second, an early closing of the case. He stated that in his opinion the motivation behind each individual neurosis should always be worked out. The presentation was well received and was discussed by Drs. J. H. Ryan, Jacob Kulowski, Floyd Spencer and closed by the essayist.

Dr. Harry M. Gilkey, Kansas City, discussed "Infantile Paralysis" during the showing of a motion picture of patients being treated by a Drinker respirator. The picture demonstrated all the minutiae of the machine and the fine points in nursing care of such patients. The Society deeply appreciated both presentations.

O. EARL WHITSELL, M.D., Secretary.

SECOND COUNCILOR DISTRICT

H. B. GOODRICH, HANNIBAL, COUNCILOR
Adair-Schuyler-Knox-Sullivan County
Medical Society

The Adair-Schuyler-Knox-Sullivan County Medical Society met November 10 with the president, Dr. S. L. Freeman, Kirksville, in the chair.

Letters from Drs. R. O. Stickler, Kirksville; E. J. Goodwin, St. Louis, and G. Wilse Robinson, Sr., Kansas City, were read by the secretary.

The following officers were elected: President, Dr. J. S. Gashwiler, Novinger (by acclamation); 1st vice president, Dr. P. V. Hart, Coatesville; 2nd vice president, Dr. Warner Herington, Green City; 3rd vice president, Dr. J. H. Keller, Lancaster; 4th vice president, Dr. F. E. Luman, Edina; secretary-treasurer, Dr. S. L. Freeman, Kirksville.

Dr. E. S. Smith, Kirksville, moved, seconded by Dr. J. S. Gashwiler, Novinger, that the secretary write asking for wording of a by-law to make it possible to have a vice president from each county represented in the North Central Counties Medical Society.

A resolution of thanks for the faithful service for the last years by the outgoing secretary, Dr. J. S. Gashwiler, introduced by Dr. E. S. Smith, was adopted.

J. S. GASHWILER, M.D., Secretary.

Linn County Medical Society

The regular dinner and meeting of the Linn County Medical Society was held in Brookfield, October 12. The dinner was served at the Luther Cafe to the Society, the Auxiliary and their guests.

Mrs. C. H. Werner, St. Joseph, president of the Auxiliary, spoke briefly concerning their activities.

The meeting of the Society was held in the office of

Dr. Roy Haley, Brookfield, with the following present: Drs. S. T. Brownfield, J. L. Evans, J. H. Lucas, R. R. Haley and L. J. Pierce, Brookfield; J. R. Dixon, Linneus; E. F. Weir, Meadville; M. L. Diekroeger, P. L. Patrick and Ben Putman, Marceline; W. B. Lucas, Mendon; C. D. Stratton and U. G. Buck, Rothville; H. E. Tatum, Brunswick; R. P. Price, Triplet; Claude Hunt and W. Wallace Greene, Kansas City.

Dr. Hunt presented a talk on "Diseases and Treatment of the Gallbladder," particularly stressing operability at various stages and some postoperative conditions.

Dr. Greene discussed "Laboratory and Roentgen Ray Findings in Gallbladder Disease." Both talks were enjoyed by the members and guests.

Following the lectures, hyphenation of the Chariton and Linn county medical societies was discussed. The members of the Chariton County Medical Society were formally invited to consider hyphenation.

G. B. PUTMAN, M.D., Secretary.

Marion-Ralls County Medical Society

The Marion-Ralls County Medical Society met at the St. Elizabeth Hospital, Hannibal, October 8. The meeting was called to order by Dr. C. E. Salyer, Hannibal, president.

A letter from the State Cancer Committee was read and discussed and the question of a cancer program for the Society and the public was passed over for the present.

Censors reported favorably on the application of Dr. J. W. Well and he was elected to membership by unanimous vote.

The application of Dr. Harry L. Greene was read and referred to the board of censors.

The recommendations of the library committee submitted at the September 3 meeting was defeated after discussion by Drs. J. W. Hardesty, J. W. Smith and D. B. Landau. As it was the general feeling of most of the members that the library was a good thing, a motion by Dr. J. W. Hardesty, seconded by Dr. H. B. Goodrich, passed as follows: That the Marion-Ralls County Medical Society establish a medical library as outlined in the previous resolution, except that the location be decided later. The president appointed the same committee to continue as the library committee.

It was decided to sponsor the Refresher Course in Pediatrics to be conducted by Dr. O. F. Bradford.

Dr. D. B. Landau, Hannibal, spoke on "Childhood Tuberculosis."

Dr. Harry L. Greene discussed "Diagnosis and Treatment of Lobar Pneumonia."

Both papers were excellent and were freely discussed.

There were twenty-two members present and one visitor, Dr. P. C. Archer, Shelbyville.

H. B. NORTON, M.D., Secretary.

Randolph-Monroe County Medical Society

The Randolph-Monroe County Medical Society met at the Public Library, Moberly, October 12.

A talk on "The Modern Electrocardiograph" was given by Dr. T. S. Fleming, Moberly.

The Refresher Course in Pediatrics began October 21 and will be given each succeeding Thursday for the eight weeks with the exception of Thanksgiving. This course is given by Dr. O. F. Bradford, Columbia. The first two meetings were well attended.

The following members and guests were present: Drs. J. F. Flynt, Paris; O. K. Megee, F. L. McCor-

nick, L. O. Nickell, T. S. Fleming, R. D. Strector, C. C. Smith, L. E. Huber and M. E. Kaiser, Moberly.
M. E. KAISER, M.D., Secretary.

EIGHTH COUNCILOR DISTRICT

H. L. KERR, CRANE, COUNCILOR

The Eighth Councilor District convened at the State Sanatorium, Mount Vernon, on October 29, at 2:30 p. m.

The afternoon program consisted of the following presentations: Dr. Richard C. Newkirk, Joplin, "The Posterior Position of the Occiput"; Dr. L. F. Heimburger, Springfield, "Acute and Early Syphilis"; Dr. Arthur E. Hertzler, Halstead, Kansas, "Thyroid Diseases Which Resemble Lung Diseases," and Dr. P. T. Bohan, Kansas City, "Neuroses."

Dr. W. J. Bryan, Rockford, Illinois, former superintendent of the Sanatorium, was toastmaster at a 6 o'clock dinner. Following the dinner Dr. Frederick Willius, Rochester, Minnesota, spoke on Coronary Disease," and Dr. J. A. Myers, Minneapolis, Minnesota, President of the National Tuberculosis Association, spoke on "Present Day Concepts in the Diagnosis, Treatment and Prevention of Tuberculosis."

Greene County Medical Society

The Greene County Medical Society met at the Colonial Hotel, Springfield, on September 24, for the first meeting after the summer vacation.

A film entitled "Syphilis of the Nervous System, A Preventable Disease," issued by the United States Public Health Service through the cooperation of the State Board of Health, was shown. A film on "Syphilis, Its Cause and Results," from the lay group of films was also shown.

Meeting of October 22

The members of the Greene County Medical Society were guests of the medical staff of the U. S. Hospital for Defective Delinquents (Federal Medical Center), Springfield, for a showing of the film, "Syphilis, A Motion Picture Clinic," released by the American Medical Association and the United States Public Health Service.

Dr. Marion King is medical director of the United States Hospital for Defective Delinquents.

The meeting was attended by approximately fifty members of the Greene County Medical Society and the staff of the Federal Hospital.

Meeting of October 28

Dr. Arthur E. Hertzler, Halstead, Kansas, and Dr. P. T. Bohan, Kansas City, were guests of the Society at a banquet meeting held at the Milner Hotel, Springfield, October 28.

Dr. Hertzler gave an interesting and informal talk which he was pleased to call, "The Old Country Doc Visits His Neighbors." He spoke on the treatment of such homely afflictions of man as lumbago and sciatica.

Dr. Bohan read an instructive and interesting paper on "The Use of Digitalis in the Treatment of Heart Failure."

H. LEE HOOVER, M.D., Secretary.

Jasper County Medical Society

The Jasper County Medical Society was called to order by the president, Dr. Paul Walker, Joplin, at Joplin on October 26.

A letter from the superintendent of the Joplin Public Schools in reply to questions concerning school examinations was read.

A card of acknowledgment from the family of the late Fanchon Sims Oliver (daughter of Dr. J. Sims) was read.

An outline of routine standing orders for nurses of the Metropolitan Life Insurance Company was read and ordered signed by the president.

The application for membership of Dr. William Russell Smith, Carthage, was reread and he was elected to membership.

A motion picture on "Syphilis of the Nervous System" was shown.

W. H. BLACK, M.D., Secretary.

NINTH COUNCILOR DISTRICT

W. H. BREUER, ST. JAMES, COUNCILOR

Carter-Shannon County Medical Society

The Carter-Shannon County Medical Society met in the Hyde Building, Eminence, at 7:30 p. m., September 21. In attendance were Drs. T. W. Cotton, Van Buren; R. I. Davis, Birch Tree; Frank Hyde and W. T. Eudy, Eminence; and C. H. Diehl, Akers.

Dr. C. H. Diehl, Akers, and Wood River, Illinois, spoke on "Allergy," on which the doctor has been carrying on some research work for the last two years. He has a large spring in the north part of Shannon County which flows from a large cave. He discovered that after going into the cave when he was suffering from hay fever he was always relieved and the same results were obtained in case of head colds and some other respiratory maladies. It was found that the air coming from the cave and water was suitable for air conditioning, having the proper humidity, purity, correct temperature and circulation. He built a house of stone in such a position that he was able to force the air into his rooms. As he was a sufferer from hay fever he took treatments himself with good results. He treated several patients with good results. The air coming from the cave is clear of pollen. It is thought that the air coming off the running water must be rich in static electricity and probably has some radium rays. The doctor is going to carry on this research and develop its possibility.

W. T. EUDY, M.D., Secretary.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

16th Annual Meeting, San Francisco, 1938

President, Mrs. Augustus Kech, Altoona, Pennsylvania.

President-Elect, Mrs. Charles C. Tomlinson, Omaha, Nebraska.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

14th Annual Meeting, Jefferson City, 1938

President, Mrs. Charles H. Werner, St. Joseph.

President-Elect, Mrs. Herbert L. Mantz, Kansas City.

Letter from the President

As state president, I have been busy during these pleasant days of Indian summer visiting the auxiliaries

over the state. Everywhere there has been good attendance at the meetings and the members show interest and have their programs for the year planned to include suggestions from the state and national programs. Reports indicate interest in the essay contest and some schools have been interviewed by members of the auxiliaries.

Luncheon meetings were held at Fulton, Columbia, Jefferson City and Rolla with fine attendance and well arranged programs reported. At Columbia the members are assisting in a Negro nursery school. Plans for the state meeting next May were discussed at Jefferson City.

At Nevada the luncheon was at a local cafe and the meeting was held at Mrs. E. R. King's home. That evening Mrs. King and I visited Miss Byrde Price, president of the Vernon-Cedar Auxiliary, who has been ill but is much improved. At this meeting the essay chairman reported fine cooperation from the schools. This auxiliary has pledged \$200 to furnish a room in their new county hospital and has already raised \$150 of the amount.

At Springfield a delightful luncheon meeting was held October 26 at the home of Mrs. A. D. Knabb with an interesting business and musical program.

The Cape Girardeau Auxiliary had a luncheon on October 30 at the home of the president, Mrs. D. I. L. Seabaugh, Jackson. Chrysanthemums and Halloween decorations were used. Mrs. Glenn Tygett, Cape Girardeau, program chairman, is preparing the yearbooks and will have them ready at the next meeting.

The Perry County Auxiliary met at the home of the president, Mrs. G. A. Blaylock, Perryville. Their program for the year included mental hygiene, the essay contest and a public relations meeting. Luncheon was served after the meeting.

Dinner meetings were held jointly with the medical societies at Brookfield on October 12 and at Excelsior Springs on October 28 after which separate meetings were held by each group. At the meeting in Brookfield, held in the home of their president, Mrs. S. T. Brownfield, four physicians' wives from Chariton County were guests and they promised to join the auxiliary if the medical societies of the two counties decided to unite. At this meeting the Linn County Auxiliary made plans for its first public relations meeting which will be held in Marceline at the home of Mrs. M. L. Diekroeger, state recording secretary. The program will be on "Cancer" and they plan to have a speaker and show a film on cancer.

At St. Louis a beautiful luncheon was served by the hospitality committee to one hundred twenty-five. After my talk a review of "And So—Victoria" was given. The St. Louis County Auxiliary does not meet until the fourth Wednesday of the month.

On the return trip I shall visit the Johnson County Auxiliary in Warrensburg and the Livingston-Caldwell County Auxiliary in Chillicothe.

In my own county, Buchanan, I was the honor guest at a delightful tea in the home of Mrs. Paul Forgrave and was the recipient of a lovely evening bag from the Auxiliary which I shall prize as a reminder of my year as state president.

Before this trip I had visited the Cass County Auxiliary in Harrisonville and enjoyed a luncheon at the Harrisonville Coffee Shop followed by a meeting at the beautiful country home of Mrs. David S. Long. Also I was the guest of the Saline County Auxiliary at Arrow Rock Tavern, and at the annual picnic of the Lafayette Auxiliary and Medical Society at Higginville.

It has been a pleasure to meet with these auxiliaries over the state and their enthusiasm and pledges of

cooperation have been most encouraging. I feel sure they will result in excellent reports at the State Convention at Jefferson City.

On November 19 Mrs. Herbert L. Mantz, Kansas City, president-elect, and your president will attend the meeting of the National Board in Chicago.

MRS. CHARLES H. WERNER, President.

CORRESPONDENCE

THE AMERICAN FOUNDATION STUDIES IN GOVERNMENT

St. Louis, November 14, 1937

To the Editor:

As a contributor to the American Foundation Studies in Government, whose survey of medical opinions was recently published, it has unfortunately become necessary to say something about the use to which these requested opinions are now being put.

For those unacquainted with the American Foundation Studies in Government it may be recalled that this body came into existence for the purpose of compiling opinions by physicians here and there throughout the country on moot points bearing on the relation of the Federal Government to the private practice of medicine.

The interpretation of these opinions it now appears, has been made by the Foundation with the altogether unexpected prerogative of deleting those not appealing to the judgment or conforming to the good taste of its members. In effect the weight of all these well considered medical opinions has been lessened or increased; moulded if you please, to fit the preconceived notions of a few people who believe that they know what is best for all concerned, and particularly what is best for us, the distilled product being thereupon handed over to the Federal Government as our very own.

This is a brand of propaganda to which we are unaccustomed in this country. It is an act which merits the severest criticism of our profession and in no sense represents it. It is the highest authority that has been misused. Let us maintain it as the highest authority.

ADRIEN BLEYER, M.D.

SYPHILIS AND MORALS

Kansas City, Mo., October 16, 1937

To the Editor:

There is a great deal written these days about syphilis. It certainly is desirable that every person be made aware that such a disease exists. Every person should know that the disease may be contracted in any of the various ways whereby living spirochetes may be transmitted from one human being into another human being. Every person must be made to understand that a great deal can be done to remedy the disease and to prevent its wretched consequences if it is contracted.

One author was pretty enthusiastic when he wrote,¹ "The moral stigma yet attached to syphilis must be removed; a free and open discussion of the subject is essential; attractive literature, talks to the public, exhibits, moving pictures, radio addresses, dramatizations and newspaper articles are all useful components of a plan for the education of the civilian population in the control of syphilis."

Free discussion is good. Talks to the public are fine, if the public will listen. Moving pictures, plays and

news print are commendable. Attractive literature offers unlimited possibilities; pamphlets carrying color plates of infected pudenda² would reach an audience of startling proportions if distributed, say, over large centers of population from airplanes. But the moral stigma part is a morsel beyond stomaching.

This is a scientific age of looking gift horses in the mouth with regard to morals. Morals do not lend themselves satisfactorily to scientific scrutiny. It takes the tabulation of the results of pin-pricking a thousand arms with dead bacteria to arouse scientific ecstasy; the results of a thousand experiments with a forty centuries old, elementary moral principle³ go without an emotional quiver. Syphilis can be contracted innocently; it can be contracted ignorantly; but it commonly is not.

If young Mr. X disregards his marriage vow, establishes a colony of spirochetes upon his person and conveys them to the cervix of his honest wife and so to the liver of his unborn child, we are to save Mr. X's conscience and tell him he has done no wrong, for moral stigma is not attached to him since he is merely syphilitic.

A denial of moral stigma attaching to syphilis contracted through violation of the moral law is perverse stupidity.

It should be possible to solve public health problems while at the same time recognizing the reality of right and wrong, as well as by patting poor, syphilitic Mr. X on the head and telling him he's not really a cheat, a cad and a killer of babies.

RICHARD L. SUTTON, JR.

BOOK REVIEWS

INJECTION TREATMENT OF HERNIA. By Carl O. Rice, M.D., F.A.C.S.; Instructor in Surgery, University of Minnesota School of Medicine; Surgeon in Charge of the Surgical Out-Patient Department of the Minneapolis General Hospital, etc. With the assistance and cooperation of Hamlin Mattson, M.D. Eighty-three illustrations. Philadelphia: F. A. Davis Company, Publishers. 1937. Price \$4.50.

This comprehensive monograph presents the arguments for this method of treatment in a very convincing manner. As the author points out the injection treatment of hernia must have merit to weather the storm of severe condemnation. While it cannot replace the operative treatment it has proven to be a very good "Supplement to Surgery."

There are excellent discussions on the etiology of hernia, the medico-legal aspects of hernia and the truss, about which most doctors have a vague knowledge. The author should be complemented on his effort to show the histopathology of the reaction of tissues to chemical irritants. But there is only one small paragraph dealing with the permanency of this newly formed fibrous tissue. It has been proved that the hernia can be controlled by this method, but is the repair permanent? Is the scar tissue produced by a chemical irritant as permanent as that produced by the destruction of tissue? Can elastic fibers be demonstrated in this newly formed tissue? These are some of the questions which must be answered to properly evaluate this treatment.

It is commonly accepted that a congenital weakness of the inguinal canal may be present for many years

1. Arch. Dermat. & Syph. 36:369 (August) 1937; cf. J. A. M. A. 107:872 (Sept. 12) 1936.

2. Morrow. P. A.: Atlas of Skin and Venereal Diseases, New York, Wm. Wood, 1889, Plates I and VI.

3. Exodus 20:14.

before a hernia develops. If this condition can be reproduced as a permanent condition then the hernia can be cured. A good technic will show a large percentage of cures. In proper hands this method of treatment will have a place in the cure of hernia.

E. R. R.

PERSONAL HYGIENE. By C. E. Turner, M.A., Dr. P.H., Professor of Biology and Public Health in the Massachusetts Institute of Technology. With eighty-four text illustrations and three color plates. St. Louis: The C. V. Mosby Co. 1937. Price \$2.25.

The preface of this book of 325 pages states that it "seeks to present the essential, present day knowledge of personal health within available time and space limitations and with enough anatomy, physiology, and other underlying sciences to clarify and support the health teaching." The author most adequately achieves his aim: It is a brief book, evidently written by one with a broad knowledge of his subject. The material is well chosen and balanced and the illustrations are excellent. Though intended for college students it would seem to be an excellent summing up of what we should like the high school graduate and young adults generally to know of personal health.

M. McL.

MANUAL OF THE DISEASES OF THE EYE. For Students and General Practitioners. By Charles H. May, M.D., Consulting Ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York; Formerly Chief of Clinic and Instructor in Ophthalmology, Medical Department of Columbia University, and Director of the Eye Service at Bellevue Hospital, New York. Fifteenth edition, revised. With the assistance of Charles A. Perera, M.D. With 376 original illustrations including twenty-five plates, with seventy-eight colored figures. Baltimore: William Wood and Company. 1937. Price \$4.00.

The fifteenth edition of this concise textbook brings up to date the previous editions and includes many of the newer ophthalmological methods. To the vast majority of medical students and practitioners these volumes have served as an introduction to the study of diseases of the eye and have led to a better understanding of the ocular complications of their patients. It has been designed to fill the need of those not specializing in diseases of the eye in obtaining a fairly good grasp of the ocular ailments more commonly met with and it does this very well.

D. B.

THE PRINCIPLES AND PRACTICE OF CLINICAL PSYCHIATRY. By Morris Braude, M.D., Associate Clinical Professor of Psychiatry, Rush Medical College, The University of Chicago. Attending Psychiatrist, Cook County Psychopathic Hospital, Chicago. Philadelphia: P. Blakiston's Son & Co., Inc. 1937. Price \$4.00.

This book essays to cover the ground usually covered by textbooks of this sort. In his preface the author sets himself to the task of rendering psychiatry more interesting and of organizing and simplifying our knowledge of it. We cannot feel that this difficult goal has been altogether attained. The book includes conditions not ordinarily described in such a text, but omits others which we would like to see included. There are special chapters on the psychoses of the female reproductive period, on food deficiency and on simulation or malingering, which are not usually found in books of

this type. The differential diagnosis of the various psychoses is well discussed and at greater length than is usual in works of this scope. The interest of the book is enhanced by the inclusion of records of actual cases taken from the author's practice and from the wards of the Cook County Psychopathic Hospital, Chicago.

In the opinion of this reviewer it is regrettable that a fuller discussion of treatment is not attempted. For example, the importance, both practical and theoretical, of the insulin treatment for dementia praecox warrants much more discussion than is devoted to it here. One is surprised to find no mention made of bromide intoxication.

Perhaps the strongest part of the book is the portion devoted to the organic psychoses. This is well done. We cannot help feeling that the utility of this book to the general practitioner is diminished by the things which have been omitted.

B. L. E.

DISEASES OF THE NERVOUS SYSTEM IN INFANCY, CHILDHOOD AND ADOLESCENCE. By Frank R. Ford, M.D., Associate Professor of Neurology, The Johns Hopkins University. Springfield, Illinois, Baltimore, Maryland: Charles C. Thomas. 1937. Price \$7.50.

This work is another monumental volume on neurology; although its title indicates that it deals with the neurology of childhood the matter differs very little from any text on the subject. The volume is so well done that criticism of minor features is scarcely justified. The book is as complete and accurate as one can conceive to be possible in a work so large and detailed. Especially helpful are the bibliographies at the end of each topic which are well chosen indeed.

As this reviewer has mentioned before one can well feel awed at the amount of labor involved in such a work. Inevitably a great deal of this labor is merely repetition of what is already found in other excellent works extant, notably those of Brain, Grinker and White and Jelliffe; equally unavoidable is the fact that no such work can be entirely complete and up to date on every topic involved. In no textbook on neurology, for instance, could an uninitiated student obtain an accurate insight into such topics as aphasia, cerebral physiology, epilepsy and the like. It seems to this reviewer at least that the talents of such compilers as Dr. Ford might be better employed in a more restricted field in making summaries of such highly important topics as these. Where, for instance, have we today a work which is as instructive and stimulating as Turner's work on epilepsy of a past time? The subject of neurology is now too broad and complicated to be adequately presented under one cover or by one man.

The present work can be unqualifiedly recommended and should be available to everyone interested in the subject of neurology.

L. B. A.

RECENT ADVANCES IN PULMONARY TUBERCULOSIS. By L. S. T. Burrell, M.A., M.D. (Cantab.), F.R.C.P. (Lond.), Senior Physician to Royal Free Hospital; Physician to Brompton Hospital for Consumption and Diseases of the Chest; Consulting Physician to King Edward VII, etc. Third edition. With forty-eight plates and twenty-two text-figures. Philadelphia: P. Blakiston's Son & Co., Inc. 1937. Price \$5.00.

The author of this work states that he has taken a broad view as to "Recent Advances." The book is not

simply a review of new procedures and notions that have been advocated in the past few years but deals mainly with what is now generally accepted as sound teaching in regard to the epidemiology, resistance, immunity and treatment of tuberculosis. He stresses particularly the size and the virulence of the infecting dose and its relationship to the subsequent course of disease. The methods of production of immunity are sufficiently dwelt upon to give some notion as to their relative value. The various diagnostic and prognostic tests are also discussed. The major portion of the book deals with the problems arising during the course of the disease, together with the methods of treatment of each. The relative value of the various drugs such as gold preparations, tuberculin, shock therapy, calcium, vitamins, et cetera, are discussed under "Treatment." Artificial pneumothorax treatment and the complications which may arise with this form of therapy are well presented. There is also a brief discussion of the indication for the various other surgical procedures. The reproductions of roentgen ray films which are all grouped at the back of the book are excellent in their technic and selection.

This work is brief, concise and clearly presented so that it should be of extreme value to general practitioners and students for which it is intended.

L. E. W.

A TEXTBOOK OF THE PRACTICE OF MEDICINE. By various authors. Edited by Frederick W. Price, M.D., C.M., F.R.S. (Edin.), Consulting Physician to the Royal Northern Hospital; Senior Physician to the National Hospital for Diseases of the Heart, London, England; Etc. Fifth edition. New York: Oxford University Press. 1937. Price \$12.50.

This is a complete and up to date textbook. It contains very interesting comparative data of medical practice as done in England and should be consulted by all American students of medicine. Especially should be commended the inclusion of excellent chapters on skin and psychological medicine. Their place in handbooks of American medicine has never been fully appreciated.

W. G. B.

SYNOPSIS OF GYNECOLOGY. Based on the Textbook Diseases of Women. By Harry Sturgeon Crossen, M.D., F.A.C.S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital and St. Luke's Hospital, etc., and Robert James Crossen, M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine. Second edition. St. Louis: The C. V. Mosby Company. 1937. Price \$3.00.

The little volume of 240 pages is designed mainly, according to the authors, for that group of medical students who need to know gynecology in a general way but "who expect to follow distant branches of the profession." It is a synopsis of Crossen's Eighth Edition of "Diseases of Women."

Chapter I is devoted to the anatomy and physiology of the genital organs and contains a good account of the relationships of pituitary and ovarian hormones to menstruation. Chapters II and III concern themselves with methods of examination and the application of these methods to gynecologic diagnosis. Treatment is considered in Chapter V and includes all of the newer approved means of therapy for pelvic lesions.

The use of the electric wire as a means of conization of the cervix is illustrated in the chapter on "Inflammatory Diseases of the Uterus." As in the larger volume the authors consider the use of radium in the treatment of carcinoma of the cervix an important advance over operation.

R. B.

PRACTICAL TALKS ON KIDNEY DISEASE. By Edward Weiss, M.D., Professor of Clinical Medicine, Temple University School of Medicine, Philadelphia. Springfield, Illinois, Baltimore, Maryland: Charles C. Thomas. 1937. Price \$3.00.

This is a small volume on medical diseases of the kidney and it offers much to the physician in general practice. It serves to refresh the memory on renal functional tests, significance of findings, diagnosis and treatment of these diseases.

H. C.

NUTRITIVE ASPECTS OF CANNED FOODS. A bibliography of scientific reports, and helpful tables of food data. Compiled by the Nutrition Laboratory, Research Department of the American Can Company.

A second book containing scientific facts on commercially canned foods has recently been published by the American Can Company, compiled by the Nutrition Laboratory in the Research Department of the company. The book "Nutritive Aspects of Canned Foods" has been prepared for doctors and scientific workers with canned foods. The earlier book "Facts About Commercially Canned Foods" was published last year.

The book is a general summary of facts about tin containers and canned foods. It is divided into two sections. The first deals with the preservation of foods, dietary requirements, the mineral and vitamin conservation in canned foods, infant nutrition and the safety of canned foods under modern methods of packing. Section two takes up the manufacture of the cans, including the tinplating, enameling and a description of can sizes. It also discusses the canning procedure from the raw materials through the sealing of the cans and the heat processing.

The back of the book contains an appendix of reference tables of all kinds. There are charts on human energy expenditures, dietary requirements, mineral and iodine content of various foods and analyses of canned foods of many kinds. A bibliography contains an appendix of references to the more complete works on each phase of the industry as well as the general texts used in preparation of the book.

THE LABORATORY DIAGNOSIS OF SYPHILIS. The Theory, Technic, and Clinical Interpretation of the Wassermann and Flocculation Tests With Serum and Spinal Fluid. By Harry Eagle, M.D., Passed Assistant Surgeon, United States Public Health Service, Washington, D. C.; Lecturer in Medicine, Johns Hopkins University Medical School, Baltimore, Md. With Foreword by J. Earle Moore, M.D., Associate in Medicine, Johns Hopkins University. St. Louis: The C. V. Mosby Co. 1937. Price \$5.00.

Since the inception of the Wassermann reaction a voluminous literature in regard to the test and its "modifications" has appeared which the greater number of physicians who use the test, and workers who daily perform the test, have not had the opportunity nor time to read.

The author has supplied a timely need for both these

groups by reviewing chronologically all the steps in the development of complement fixation tests for syphilis to the present era, with a lucid description and analysis of the procedures involved. He describes in detail the mechanism of Wassermann and flocculation tests, the sources of error to be expected in both tests, evaluates the meaning of the various types of reports now in use and attempts to clarify the confusion arising from such reports as "positive Wassermann, negative Kahn," etc.

The application of these tests to the spinal fluid is analyzed as are other laboratory procedures used in the diagnosis of neurosyphilis, such as the globulin, Lange and Mastic tests. The relative merits of the Wassermann test as compared with the newer flocculation tests such as the Kahn, are carefully analyzed and evaluated and the author concludes that the maximum degree of dependability and sensitivity is gained by using both tests routinely rather than one test to the exclusion of the other as has been adopted in some laboratories.

With a wide experience and thorough knowledge of the principles involved in both types of tests the author outlines a Wassermann and flocculation test of choice, manner of reporting results and interpretation of reports.

Also included in the book are an evaluation of the relative merits of macro- and micro-flocculation tests, of other tests for syphilis besides the Wassermann and flocculation tests and the application of complement fixation tests to other body fluids besides serum, such as breast milk, cyst fluid, etc.

The book is not too voluminous and should be read both by physicians and laboratory workers with a view to promoting better understanding and cooperation between the laboratory and physicians who use the test.

R. E. D.

TEXTBOOK OF DIAGNOSTIC ROENTGENOLOGY. By Lewis J. Friedman, M.D., Director, Roentgen-Ray Department, Bellevue Hospital; Instructor in Radiology, New York University College of Medicine; Chief Radiologist, Stuyvesant Polyclinic; consulting Roentgenologist, Police Department of the City of New York. 638 Illustrations. New York, London: D. Appleton-Century Company, Inc. 1937.

The reviewer was quite pleased to have the opportunity of examining this book and finds that it is a most complete textbook of diagnostic roentgenology. Practically all known roentgen ray procedures and methods of diagnosis are included and described in concise readable style. In addition there is an excellent bibliography at the end of each chapter, making collateral reading easily available.

C. E. V.

THE POSTMORTEM EXAMINATION. By Sidney Farber, M.D., Associate in Pathology, Harvard Medical School, Pathologist to The Infant's Hospital and The Children's Hospital, Boston. Springfield, Illinois. Baltimore, Maryland: Charles C. Thomas. 1937. Price \$3.50.

This little book of 201 pages is written, according to the author's preface, for the teaching of medical students, young pathologists and clinical house officers of hospitals. He also states that practitioners who must on occasion perform an autopsy without expert aid may find guidance in the pages of this book.

Reviewing medical books seems to have developed a peculiar technic, viz.: it is the custom in many cases

to read over the book in the hope of finding something incorrect, improper quotations, typographical errors and what not. After this spirited attempt is made the reviewer grudgingly gives an endorsement or sometimes concludes with faint praise.

This reviewer tries to read a book with as lively an interest as possible and to lose himself in the enthusiasm of the author. As one who for thirty-five years has made autopsies and the "autopsy habit" his lifework, he can state in all candor that this is an excellent little book and will serve a very useful purpose for those mentioned above. It is basically written after the original methods of the pioneer German pathologists, Virchow and Rokitsansky. In addition to the basic background it carries out the most modern thought on this subject. The author acknowledges his indebtedness to Professor Fischer-Wasels and the late Professor Carl Benda in this regard.

It is impossible to take up each chapter, each paragraph and each statement. We have read practically everything that has been written in the last quarter of a century on this subject. We are pleased to state that this is a worth while undertaking and that it will serve an exceedingly useful purpose. We salute Dr. Farber for his evident enthusiasm in what we regard as the most important part of the hospital activities—the search after truth in the human body. If widely read and used in hospitals it will serve to accentuate Virchow's immortal words, over the entrance to the autopsy room of the Charité Hospital in Berlin, "that death delights to serve the living . . ."

R. B. H. G.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the Use of Students and Practitioners. By Oliver S. Ormsby, M.D., Clinical Professor and Chairman of the Department of Dermatology, Rush Medical College of the University of Chicago. With revision of the Histopathology and Mycology. By Clark Wylie Finnerud, B.S., M.D., Assistant Clinical Professor of Dermatology, Rush Medical College of the University of Chicago. Fifth edition, thoroughly revised. Illustrated with 658 engravings and three colored plates. Philadelphia: Lea & Febiger. 1937. Price \$12.00.

Teachers of Dermatology and those specializing in that department of medicine are fortunate to have available Ormsby's latest edition, "Diseases of the Skin." Four other volumes precede the present one, the first appearing in 1915. Many additions and changes have been made with each subsequent volume in order to keep apace with the rapid growth of this specialized department of medicine. Volume V now comes as a climax of these years of uninterrupted progress.

The author describes twenty new diseases and has completely revised his description of twelve others. The entire book is replete with photographs and microphotographs. The chapters covering major diseases such as syphilis, tuberculosis and carcinoma cutis have been greatly amplified. Eighty pages are devoted to syphilis alone. The newer theories of diagnosis and treatment of the disease are plainly set forth and those around which controversy has existed are frankly evaluated.

The introduction is followed by five chapters on General Symptomatology, Pathology, Diagnosis, Etiology and Prognosis. From the literature is gleaned an extensive bibliography; this with a comprehensive index and table of contents offers the teacher and student an indispensable textbook.

E. P. M.

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